

Unpacking

1

When unpacking, take care not to damage the Clarity system unit or any of the supplied peripherals. When you have unpacked, please retain the packaging in case you need to return the system unit for any reason.

Do not return the system unit unless it is properly packed. If you have any doubts, contact Pixel Power.



The graphics tablet (if supplied), keyboard and manual are packed separately; again, check for damage and inform the shipper immediately if there are any visible signs of damage. Please refer to the packing list included with the product documentation. If anything appears to be missing, please contact your dealer in the first instance.

Recording important information

2

Microsoft Windows product key

Before installing the system unit in its final location, please make a note of the Microsoft Windows product key shown on the label on the top cover of the system unit.

System unit serial number

If you have not done so already, make a note of the serial number located on the flat panel, inside the PSU enclosure recess on the right-hand side of the rear panel.

Licence dongle serial number

If you have not done so already, make a note of the serial number located on the licence dongle supplied with the system unit.



Installing a system unit

3

You can either rack-mount a system unit or leave it free-standing on a desk or other suitable surface. Rack-mounting is the recommended choice.

The selected rack must have at least 1U of available space and have adequate rear access to enable the connection and removal of cables and peripherals.

The rack should be located in a clean, dry environment and be in close proximity to power and networking resources.



Racking mounting

When rack mounting a Clarity 100 system unit, you can either install a rail guide system or a bracket mount system. Genuine Intel® rail and bracket mounts kits are supplied as standard with 1U Clarity systems. Instructions detailing the mounting procedure are supplied.

Please refer to this Intel documentation when rack mounting 1U Clarity systems.

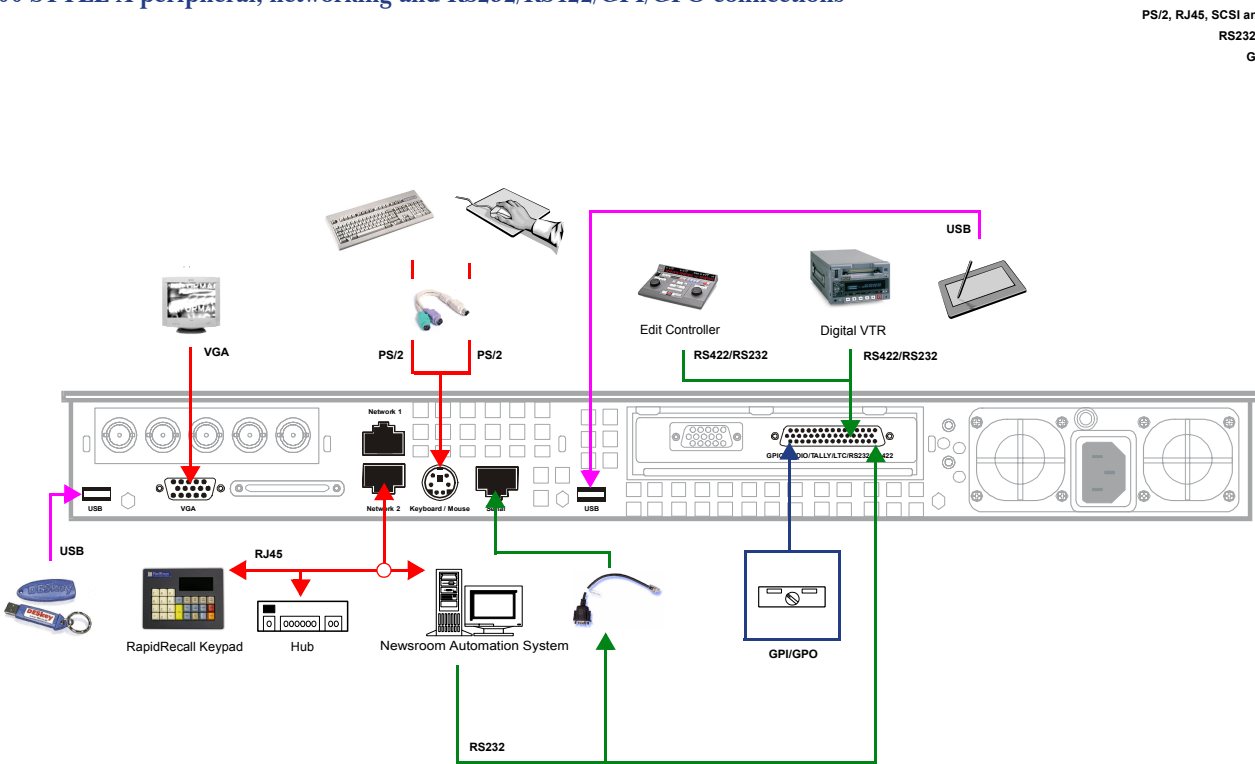
Please check that you have received the correct mounting kits by matching the corresponding product codes below.

Product Code	UPCMM	#	Description
AXX1U2URAIL	735858147637	837071	Rail kit for SRF1300/SRF2300
FXXBRACKETS	735858147620	837069	Bracket kit for SRF1300/SRF2300

Clarity100

Quick Start Guide | H059W002\_Rev06  
Hardware Installation

Clarity 100 STYLE A peripheral, networking and RS232/RS422/GPI/GPO connections



Setting up a Clarity 100 system unit [STYLE A]

This section describes how to make all necessary connections to a Clarity 100 system unit. Please refer to the following sections for information.

Power

Ensure that the mains supply is OFF when connecting or disconnecting the power supply to a system unit.

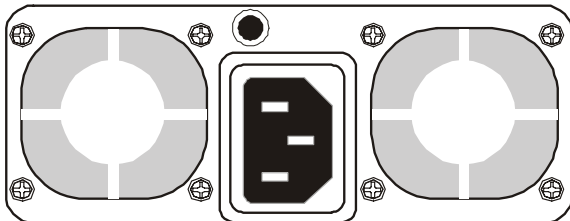


The supplied mains cables shipped with the system unit will match the required type for use in the selected country or region.

Clarity 100 STYLE A non-redundant 350W PSU

To connect the power, follow the steps below:

- Connect the moulded mains lead to the IEC 3-pin power socket on the rear panel.
- Connect the other end of the moulded mains lead to the mains power supply. Do not turn the unit on until all other connections have been made.



Mouse and standard PC keyboard

A mouse and UK/US standard PC keyboard are supplied with all Clarity 100 system units. Both of these peripherals are connected to the single PS/2 DIN socket using a breakout cable.



- Plug the breakout cable 6-pin mini-DIN plug into the DIN socket (**Keyboard/Mouse**).
- Plug the PS/2 compatible mouse 6-pin mini-DIN plug into the first female DIN connector. Plug the PC keyboard 6-pin mini-DIN plug into the second female DIN connector.

Graphics tablet

- A graphics tablet is an option to Clarity 100 system units. Plug the male USB plug on the cable connecting the tablet into an available USB port (**USB**).

License dongle

- Plug the supplied Licence Dongle into an available USB port (**USB**). This **MUST** be fitted for the software to operate correctly.

Network

- If you are connecting a Clarity system unit to your Ethernet 10/100 network, do so using either the RJ45 Ethernet 10/100 Network port (**Network 1**) or 100/1000 Network port (**Network 2**). The network ports can also be used to connect newsroom automation systems and RapidRecall keypads.

SVGA display

- Plug the SVGA cable 15-pin male HD D-type plug of your monitor into the 15-pin female HD D-type socket (**VGA**).

Digital VTR or Edit Controller

- Plug the 44-pin male D-type plug on the breakout communication cable connecting the VTR or Edit controller into the 44-pin female D-type socket (**GPI/AUDIO/TALLY/LTC/RS232/RS422**).

Newsroom automation system or RapidRecall keypad

Either:

- Plug the 44-pin male HD D-type plug on the breakout communication cable connecting the Newsroom automation system into the 44-pin female HD D-type socket (**GPI/AUDIO/TALLY/LTC/RS232/RS422**).

Or:

- Plug the 9-pin male D-type plug on the cable connecting the Newsroom automation system into the 9-pin female D-type socket on the RJ45 to 9-pin female D-type breakout cable.

The network ports can also be used to connect newsroom automation systems and RapidRecall keypads.

GPI/GPO switching

- Plug the 44-pin male HD D-type plug on the breakout communication cable connecting the GPI switching device into the 44-pin female HD D-type socket (**GPI/AUDIO/TALLY/LTC/RS232/RS422**).

SD Video and Audio connections

For more information on these connections, refer to the Clarity Installation, Operational Testing and Maintenance Manual (H059W003).

4

What next?

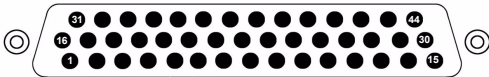
Now that you have connected up your system unit, see overleaf for more information on further documentation resources and cabling guides.

There is no requirement to install the CG Tools software as is already pre-installed on the system unit.



44-pin high density (HD) female D-type connector

Due to rear panel space limitations, Clarity 100 systems employ a 44-pin female HD D-type socket on the rear panel to enable GPI/O, digital/analogue audio, bypass tally, LTC, RS232 and RS422 signal distribution.



Pin	Connection
1	AES digital audio 1-2 TX+ (from Clarity)
2	AES digital audio 1-2 RX+ (into Clarity)
3	AES digital audio 3-4 TX+
4	AES digital audio 3-4 RX+
5	LTC IN+ (with LTC option) (into Clarity)
6	LTC OUT (unbalanced, with LTC option) (from Clarity)
7	GPI 1 (into Clarity)
8	GPI 2 (into Clarity)
9	GPO 1 normally open
10	GPO 2 normally open
11	RS232 serial port TX (from Clarity)
12	RS232 serial port RX (into Clarity)
13	RS232 serial port RTS (from Clarity)
14	RS232 serial port CTS (into Clarity)
15	Ground (RS232 and GPI/GPO/TALLY)
16	Ground (AES TX 1-2)
17	Ground (AES RX 1-2)
18	Ground (AES TX 3-4)
19	Ground (AES RX 3-4)
20	GPO 3 normally open
21	GPO 3 wiper
22	GPO 4 normally open
23	GPO 4 wiper
24	GPO 1 wiper
25	GPO 2 wiper
26	RS422 serial port TX+ (from Clarity)
27	RS422 serial port TX- (from Clarity)
28	RS422 serial port RX+ (into Clarity)
29	RS422 serial port RX- (into Clarity)
30	Ground (RS422 and GPI/GPO/TALLY)
31	AES digital audio 1-2 TX- (from Clarity)
32	AES digital audio 1-2 RX- (into Clarity)
33	AES digital audio 3-4 TX-
34	AES digital audio 3-4 RX-
35	LTC IN- (with LTC option) (into Clarity)
36	Ground (LTC IN/OUT)
37	GPI 3 (into Clarity)
38	GPI 4 (into Clarity)
39	Analogue audio out - Right (line level unbalanced)
40	Ground (Analogue monitoring audio)
41	Analogue audio out - Left (line level unbalanced)
42	Bypass tally normally open
43	Bypass tally wiper
44	Bypass tally normally closed

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44-pin breakout communication cable data



A specialised multi-function cable can be created to distribute and receive signals to respective external devices and peripherals.  
The table below identifies all of the connectors that can be utilised, as shown in the picture to the left.  
Pin out mapping to respective connectors is only a guide and may be different depending on the equipment you are connecting to.

Connector Description		Pin	44-pin D-type pin	Signal	Connector Illustration
GPI/GPO/TALLY GPI - connect to ground (through a contact closure) for operation, pulled up to +5v at Clarity end GPO relay - up to 30V dc, 0.5A, undedicated contact closure Tally relay - up to 30V dc, 0.5A, undedicated contact change over	25-pin female D-type	1	7	GPI 1	
		2	8	GPI 2	
		3	37	GPI 3	
		4	38	GPI 4	
		5	9	GPO 1 N/O	
		6	24	GPO 1 wiper	
		7	10	GPO 2 N/O	
		8	25	GPO 2 wiper	
		9	15	Ground	
		10	30	Ground	
		11	Not used		
		12	Not used		
		13	42	Bypass tally N/O	
		14	43	Bypass tally wiper	
		15	44	Bypass tally N/C	
		16	20	GPO 3 N/O	
		17	21	GPO 3 wiper	
		18	22	GPO 4 N/O	
		19	23	GPO 4 wiper	
		20	Not used		
		21	Not used		
		22	Not used		
		23	Not used		
		24	Not used		
		25	Not used		
RS422	9-pin female D-type	1	30	RS422 Ground	
		2	29	RS422 RX-	
		3	26	RS422 TX+	
		4	30	RS422 Ground	
		5	Not used		
		6	30	RS422 Ground	
		7	28	RS422 RX+	
		8	27	RS422 TX-	
		9	30	RS422 Ground	
RS232	9-pin male D-type	1	Not used		
		2	12	RS232 RX	
		3	11	RS232 TX	
		4	13	RS232 RTS	
		5	15	RS232 Ground	
		6	Not used		
		7	13	RS232 RTS	
		8	14	RS232 CTS	
		9	Not used		
Digital Audio	AES Audio In A Green Female XLR	1 - Screen	17	Ground	
		2 - Red	2	AES 1-2 RX+	
		3 - Black	32	AES 1-2 RX -	
	AES Audio Out A Red Male XLR	1 - Screen	16	Ground	
		2 - Red	1	AES 1-2 TX+	
		3 - Black	31	AES 1-2 TX -	
	AES Audio In B Blue Female XLR	1 - Screen	19	Ground	
		2 - Red	4	AES 3-4 RX+	
		3 - Black	34	AES 3-4 RX-	
	AES Audio Out B Yel-low Male XLR	1 - Screen	18	Ground	
		2 - Red	3	AES 3-4 TX+	
		3 - Black	33	AES 3-4 TX-	
LTC In	LTC In Black Female XLR	1 - Screen	36	Ground	
		2 - Red	5	LTC IN+	
		3 - Black	35	LTC IN-	
LTC Out	Yellow Phono	Centre	6	LTC Out	
		Screen	36	Ground	
Analogue Audio	Monitor Audio Left Black or White Phono	Centre	41	Left	
		Screen	40	Ground	
	Monitor Audio Right Red Phono	Centre	39	Right	
		Screen	40	Ground	

Further documentation resources

Manuals and guides

The following are currently available to support the Clarity range of products and are featured on the Documentation CD-ROM:

Part Number	Title	Purpose	Format
H059W002	Clarity and Clarity PREP Quick Start Guide	Quick guide to the installation of all Clarity 100, 200, 300, 3000, 500 and 5000 systems and the CG Tools software.	Adobe Acrobat PDF
H059W003	Clarity Installation, Operational Testing and Maintenance Manual	Full installation guide detailing specifications, installation, connectivity and maintenance.	Adobe Acrobat PDF
H059W004	CG Tools Online Help/Reference Manual	Provides both an in-depth guide to the features and functionality of the CG Tools software and also a day-to-day reference to the software's user interface including menus and dialog boxes.	HTMLHelp or Adobe Acrobat PDF

Software release information

Separate software release notes in Adobe Acrobat format previously accompanied every periodic CG Tools software release. Release information now forms part of the CG Tools Online Help/Reference Manual (H059W004) reference and is updated for every periodic CG Tools release. Release notes can be found in the "Release notes" section. Release note information features known problems, new features, bug fixes and updates to documentation not linked to current or previous releases.

User-to-User forums

The online support forums are available to any bona fide Pixel Power user with a valid software maintenance agreement. This includes all Pixel Power users during the first year after purchasing their Collage, Graphite, Clarity or Collette systems. To gain access to the online user support forums you will need a login ID and password. Please complete and submit the short form via the following link:

[http://www.pixelpower.com/support\\_forum.html](http://www.pixelpower.com/support_forum.html)

Your login ID will be sent via email before the close of the next business day. Freelance operators and those who are not otherwise an employee of a Pixel Power user site may request a login ID and password via an e-mail to [support@pixelpower.com](mailto:support@pixelpower.com). Please state clearly the reason for your request. Once we have confirmed your login ID and password via email, you can access the login page for the forums using the following address:

<http://pixelwww.pixelpower.com/cgi-bin/yabb/YaBB.pl>

Pixel Power Support

Our website features a software support section where you can obtain information about training, submit casual software support queries, view frequently asked questions and download software updates. There is also an product registration page that will enable to you register your product online. For more information about these services, see the following page on our website:

<http://www.pixelpower.com/support.html>



Unpacking

1

When unpacking, take care not to damage the Clarity system unit or any of the supplied peripherals. When you have unpacked, please retain the packaging in case you need to return the system unit for any reason.

Do not return the system unit unless it is properly packed. If you have any doubts, contact Pixel Power.



The graphics tablet (if supplied), keyboard and manual are packed separately; again, check for damage and inform the shipper immediately if there are any visible signs of damage. Please refer to the packing list included with the product documentation. If anything appears to be missing, please contact your dealer in the first instance.

Recording important information

2

Microsoft Windows product key

Before installing the system unit in its final location, please make a note of the Microsoft Windows product key shown on the label on the top cover of the system unit.

System unit serial number

If you have not done so already, make a note of the serial number located on the rear panel of the system unit.

Licence dongle serial number

If you have not done so already, make a note of the serial number located on the licence dongle supplied with the system unit.



Installing a system unit

3

You can either rack-mount a system unit or leave it free-standing on a desk or other suitable surface. Rack-mounting is the recommended choice.

The selected rack must have at least 2U of available space and have adequate rear access to enable the connection and removal of cables and peripherals.

The rack should be located in a clean, dry environment and be in close proximity to power and networking resources.



Racking mounting

When rack mounting a Clarity 200 system unit, you can either install a rail guide system or a bracket mount system. Genuine Intel® rail and bracket mounts kits are supplied as standard with 2U Clarity systems. Instructions detailing the mounting procedure are supplied.

Please refer to this Intel documentation when rack mounting 2U Clarity systems.

Please check that you have received the correct mounting kits by matching the corresponding product codes below.

Product Code	UPCMM	#	Description
AXX1U2URAIL	735858147637	837071	Rail kit for SRF1300/SRF2300
FXXBRACKETS	735858147620	837069	Bracket kit for SRF1300/SRF2300

Setting up a Clarity 200 system unit [STYLE A]

This section describes how to make all necessary connections to a Clarity 200 system unit. Please refer to the following sections for information.

Power

Ensure that the mains supply is OFF when connecting or disconnecting the power supply to a system unit.

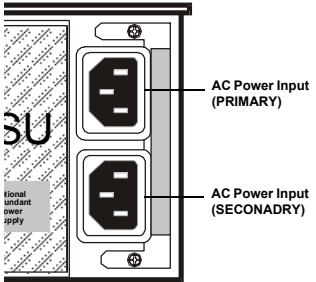


The supplied mains cables shipped with the system unit will match the required type for use in the selected country or region.

Clarity 200 STYLE A dual-redundant 500W PSU cage

To connect the power, follow the steps below:

- Make sure that the source is suitable.
- Connect the moulded mains lead to the TOP IEC 3-pin power socket on the rear panel. If the optional second module is fitted, connect the second moulded mains lead to the BOTTOM IEC 3-pin power socket on the rear panel.



- Connect the other end of the moulded mains leads to separate redundant mains circuits. Do not turn the unit on until all other connections have been made.

Mouse and RapidAction keyboard

A mouse and RapidAction keyboard are supplied with all Clarity 200 system units. Both of these peripherals are connected to the single PS/2 DIN socket using a breakout cable.



- Plug the breakout cable 6-pin mini-DIN plug into the DIN socket (Keyboard/Mouse).
- Plug the PS/2 compatible mouse 6-pin mini-DIN plug into the first female DIN connector. Plug the PC keyboard 6-pin mini-DIN plug into the second female DIN connector.

Graphics tablet

- A graphics tablet is an option to Clarity 200 system units. Plug the male USB plug on the cable connecting the tablet into an available USB port (USB).

License dongle

- Plug the supplied Licence Dongle into an available USB port (USB). This MUST be fitted for the software to operate correctly.

Network

- If you are connecting a Clarity system unit to your Ethernet 10/100 network, do so using either the RJ45 Ethernet 10/100 Network port (Network 1) or 100/1000 Network port (Network 2). The network ports can also be used to connect newsroom automation systems and RapidRecall keypads.

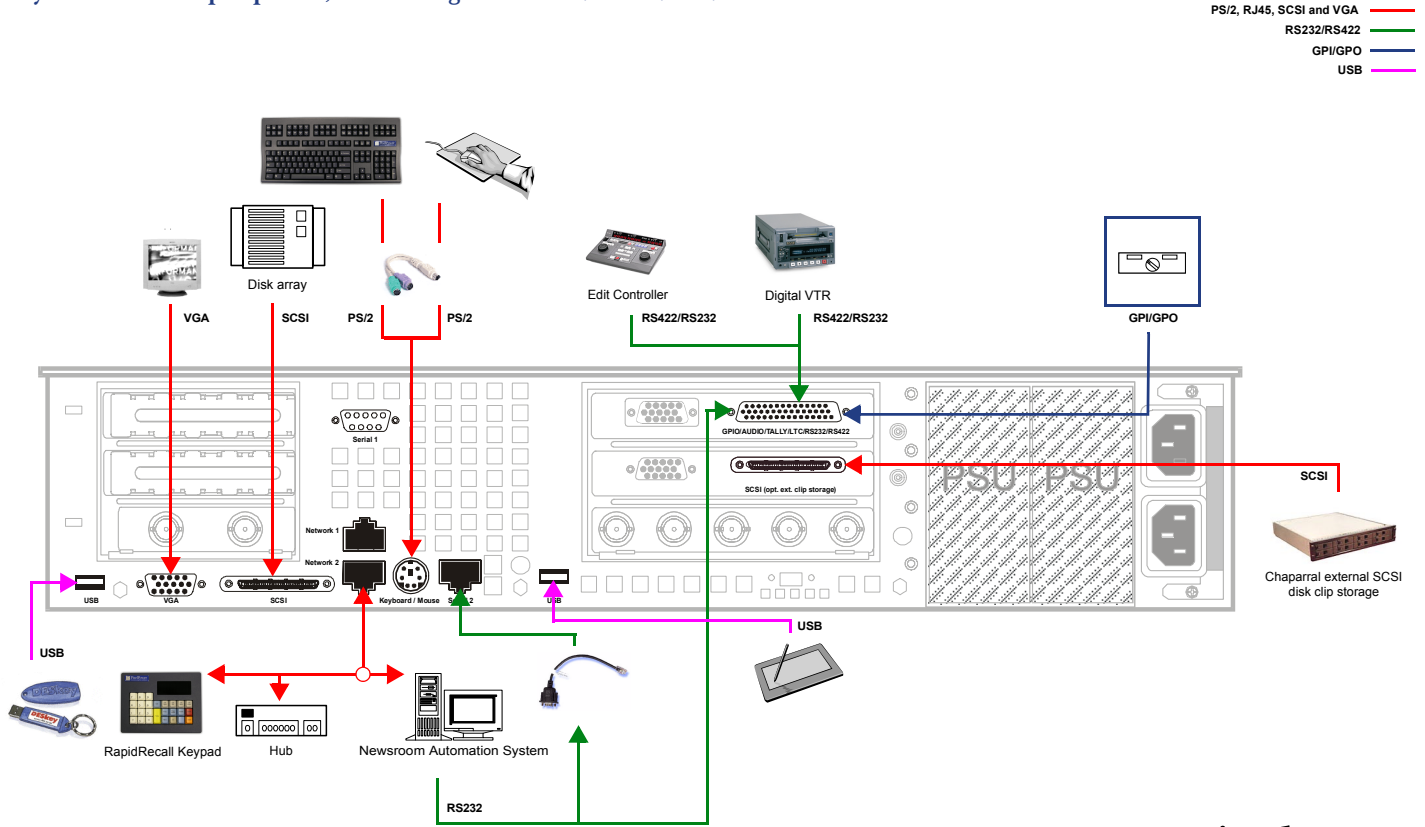
SVGA display

- Plug the SVGA cable 15-pin male HD D-type plug of your monitor into the 15-pin female HD D-type socket (VGA).

Clarity200

Quick Start Guide | H059W002\_Rev06  
Hardware Installation

Clarity 200 STYLE A peripheral, networking and RS232/RS422/GPI/GPO connections



Disk Array

- For increased external storage connect a suitable SCSI disk array to the 68-pin female VHDCI SCSI ULTRA 320 connector (SCSI).

Chaparral external SCSI disk clip storage

- If your system unit features the optional video/audio clip option, plug in the 68-pin male VHDCI plug on the SCSI ULTRA 320 cable into the 68-pin female VHDCI SCSI ULTRA 320 connector (SCSI (opt. ext. clip storage)). Plug the other end (68-pin male VHDCI) into the external clip store (Chaparral).

Digital VTR or Edit Controller

- Plug the 44-pin male D-type plug on the breakout communication cable connecting the VTR or Edit controller into the 44-pin female D-type socket (GPIO/AUDIO/TALLY/LTC/RS232/RS422).

Newsroom automation system or RapidRecall keypad

Either:

- Plug the 44-pin male HD D-type plug on the breakout communication cable connecting the Newsroom automation system into the 44-pin female HD D-type socket (GPIO/AUDIO/TALLY/LTC/RS232/RS422).

Or:

- Plug the 9-pin male D-type plug on the cable connecting the Newsroom automation system into the 9-pin female D-type socket on the RJ45 to 9-pin female D-type breakout cable.

The network ports can also be used to connect newsroom automation systems and RapidRecall keypads.

GPI/GPO switching

- Plug the 44-pin male HD D-type plug on the breakout communication cable connecting the GPI switching device into the 44-pin female HD D-type socket (GPIO/AUDIO/TALLY/LTC/RS232/RS422).

SD Video and Audio connections

For more information on these connections, refer to the Clarity Installation, Operational Testing and Maintenance Manual (H059W003).

What next?

Now that you have connected up your system unit, see overleaf for more information on further documentation resources and cabling guides.

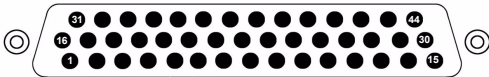
There is no requirement to install the CG Tools software as is already pre-installed on the system unit.

4



44-pin high density (HD) female D-type connector

Due to rear panel space limitations, Clarity 200 systems employ a 44-pin female HD D-type socket on the rear panel to enable GPI/O, digital/analogue audio, bypass tally, LTC, RS232 and RS422 signal distribution.



Pin	Connection
1	AES digital audio 1-2 TX+ (from Clarity)
2	AES digital audio 1-2 RX+ (into Clarity)
3	AES digital audio 3-4 TX+
4	AES digital audio 3-4 RX+
5	LTC IN+ (with LTC option) (into Clarity)
6	LTC OUT (unbalanced, with LTC option) (from Clarity)
7	GPI 1 (into Clarity)
8	GPI 2 (into Clarity)
9	GPO 1 normally open
10	GPO 2 normally open
11	RS232 serial port TX (from Clarity)
12	RS232 serial port RX (into Clarity)
13	RS232 serial port RTS (from Clarity)
14	RS232 serial port CTS (into Clarity)
15	Ground (RS232 and GPI/GPO/TALLY)
16	Ground (AES TX 1-2)
17	Ground (AES RX 1-2)
18	Ground (AES TX 3-4)
19	Ground (AES RX 3-4)
20	GPO 3 normally open
21	GPO 3 wiper
22	GPO 4 normally open
23	GPO 4 wiper
24	GPO 1 wiper
25	GPO 2 wiper
26	RS422 serial port TX+ (from Clarity)
27	RS422 serial port TX- (from Clarity)
28	RS422 serial port RX+ (into Clarity)
29	RS422 serial port RX- (into Clarity)
30	Ground (RS422 and GPI/GPO/TALLY)
31	AES digital audio 1-2 TX- (from Clarity)
32	AES digital audio 1-2 RX- (into Clarity)
33	AES digital audio 3-4 TX-
34	AES digital audio 3-4 RX-
35	LTC IN- (with LTC option) (into Clarity)
36	Ground (LTC IN/OUT)
37	GPI 3 (into Clarity)
38	GPI 4 (into Clarity)
39	Analogue audio out - Right (line level unbalanced)
40	Ground (Analogue monitoring audio)
41	Analogue audio out - Left (line level unbalanced)
42	Bypass tally normally open
43	Bypass tally wiper
44	Bypass tally normally closed

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44-pin breakout communication cable data



A specialised multi-function cable can be created to distribute and receive signals to respective external devices and peripherals.

The table below identifies all of the connectors that can be utilised, as shown in the picture to the left.

Pin out mapping to respective connectors is only a guide and may be different depending on the equipment you are connecting to.

Connector Description		Pin	44-pin D-type pin	Signal	Connector Illustration
GPI/GPO/TALLY GPI - connect to ground (through a contact closure) for operation, pulled up to +5v at Clarity end GPO relay - up to 30V dc, 0.5A, undedicated contact closure Tally relay - up to 30V dc, 0.5A, undedicated contact change over	25-pin female D-type	1	7	GPI 1	
		2	8	GPI 2	
		3	37	GPI 3	
		4	38	GPI 4	
		5	9	GPO 1 N/O	
		6	24	GPO 1 wiper	
		7	10	GPO 2 N/O	
		8	25	GPO 2 wiper	
		9	15	Ground	
		10	30	Ground	
		11	Not used		
		12	Not used		
		13	42	Bypass tally N/O	
		14	43	Bypass tally wiper	
		15	44	Bypass tally N/C	
		16	20	GPO 3 N/O	
		17	21	GPO 3 wiper	
		18	22	GPO 4 N/O	
		19	23	GPO 4 wiper	
		20	Not used		
		21	Not used		
		22	Not used		
		23	Not used		
		24	Not used		
		25	Not used		
RS422	9-pin female D-type	1	30	RS422 Ground	
		2	29	RS422 RX-	
		3	26	RS422 TX+	
		4	30	RS422 Ground	
		5	Not used		
		6	30	RS422 Ground	
		7	28	RS422 RX+	
		8	27	RS422 TX-	
		9	30	RS422 Ground	
RS232	9-pin male D-type	1	Not used		
		2	12	RS232 RX	
		3	11	RS232 TX	
		4	13	RS232 RTS	
		5	15	RS232 Ground	
		6	Not used		
		7	13	RS232 RTS	
		8	14	RS232 CTS	
		9	Not used		
Digital Audio	AES Audio In A Green Female XLR	1 - Screen	17	Ground	
		2 - Red	2	AES 1-2 RX+	
		3 - Black	32	AES 1-2 RX -	
	AES Audio Out A Red Male XLR	1 - Screen	16	Ground	
		2 - Red	1	AES 1-2 TX+	
		3 - Black	31	AES 1-2 TX -	
	AES Audio In B Blue Female XLR	1 - Screen	19	Ground	
		2 - Red	4	AES 3-4 RX+	
		3 - Black	34	AES 3-4 RX-	
	AES Audio Out B Yel-low Male XLR	1 - Screen	18	Ground	
		2 - Red	3	AES 3-4 TX+	
		3 - Black	33	AES 3-4 TX-	
LTC In	LTC In Black Female XLR	1 - Screen	36	Ground	
		2 - Red	5	LTC IN+	
		3 - Black	35	LTC IN-	
LTC Out	Yellow Phono	Centre	6	LTC Out	
		Screen	36	Ground	
Analogue Audio	Monitor Audio Left Black or White Phono	Centre	41	Left	
		Screen	40	Ground	
	Monitor Audio Right Red Phono	Centre	39	Right	
		Screen	40	Ground	

Further documentation resources

Manuals and guides

The following are currently available to support the Clarity range of products and are featured on the Documentation CD-ROM:

Part Number	Title	Purpose	Format
H059W002	Clarity and Clarity PREP Quick Start Guide	Quick guide to the installation of all Clarity 100, 200, 300, 3000, 500 and 5000 systems and the CG Tools software.	Adobe Acrobat PDF
H059W003	Clarity Installation, Operational Testing and Maintenance Manual	Full installation guide detailing specifications, installation, connectivity and maintenance.	Adobe Acrobat PDF
H059W004	CG Tools Online Help/Reference Manual	Provides both an in-depth guide to the features and functionality of the CG Tools software and also a day-to-day reference to the software's user interface including menus and dialog boxes.	HTMLHelp or Adobe Acrobat PDF

Software release information

Separate software release notes in Adobe Acrobat format previously accompanied every periodic CG Tools software release. Release information now forms part of the CG Tools Online Help/Reference Manual (H059W004) reference and is updated for every periodic CG Tools release. Release notes can be found in the "Release notes" section. Release note information features known problems, new features, bug fixes and updates to documentation not linked to current or previous releases.

User-to-User forums

The online support forums are available to any bona fide Pixel Power user with a valid software maintenance agreement. This includes all Pixel Power users during the first year after purchasing their Collage, Graphite, Clarity or Collette systems. To gain access to the online user support forums you will need a login ID and password. Please complete and submit the short form via the following link:

[http://www.pixelpower.com/support\\_forum.html](http://www.pixelpower.com/support_forum.html)

Your login ID will be sent via email before the close of the next business day. Freelance operators and those who are not otherwise an employee of a Pixel Power user site may request a login ID and password via an e-mail to [support@pixelpower.com](mailto:support@pixelpower.com). Please state clearly the reason for your request. Once we have confirmed your login ID and password via email, you can access the login page for the forums using the following address:

<http://pixelwww.pixelpower.com/cgi-bin/yabb/YaBB.pl>

Pixel Power Support

Our website features a software support section where you can obtain information about training, submit casual software support queries, view frequently asked questions and download software updates. There is also an product registration page that will enable to you register your product online. For more information about these services, see the following page on our website:

<http://www.pixelpower.com/support.html>



## Unpacking

1

When unpacking, take care not to damage the Clarity system unit or any of the supplied peripherals. When you have unpacked, please retain the packaging in case you need to return the system unit for any reason.

Do not return the system unit unless it is properly packed. If you have any doubts, contact Pixel Power.



The graphics tablet (if supplied), keyboard and manual are packed separately; again, check for damage and inform the shipper immediately if there are any visible signs of damage. Please refer to the packing list included with the product documentation. If anything appears to be missing, please contact your dealer in the first instance.

## Recording important information

2

### Microsoft Windows product key

Before installing the system unit in its final location, please make a note of the Microsoft Windows product key shown on the label on the front of the system unit (behind the removable front panel).

### System unit serial number

If you have not done so already, make a note of the serial number located on the rear panel of the system unit.



### Licence dongle serial number

The USB dongle is pre-installed inside the system chassis during production. This reduces the possibility of the dongle being lost or damaged during transit. For reference purposes, the dongle number is listed on front of the system unit (behind the removable front panel).

## Installing a system unit

3

You can either rack-mount a system unit or leave it free-standing on a desk or other suitable surface. Rack-mounting is the recommended choice.

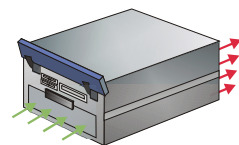
The selected rack must have at least 3U of available space and have adequate rear access to enable the connection and removal of cables and peripherals.

The rack should be located in a clean, dry environment and be in close proximity to power and networking resources.



Ensure there is adequate airflow behind the unit; air is taken in through the front panel filter and exhausted from the rear.

It will be necessary to clean the air filter from time to time; remove it from the front panel and wash in warm water. Dry thoroughly before replacing.



Replacement air filters are available if required.

### Rack-mounting

To rack-mount a 3U Clarity system unit using the optional Pixel Power rack mount kit (PP8118), please refer to the mounting instruction sheet that is supplied with the kit for more information. When fitting the extension slide to the side of a 3U Clarity system unit, use M4 screws no more than 8mm in length.

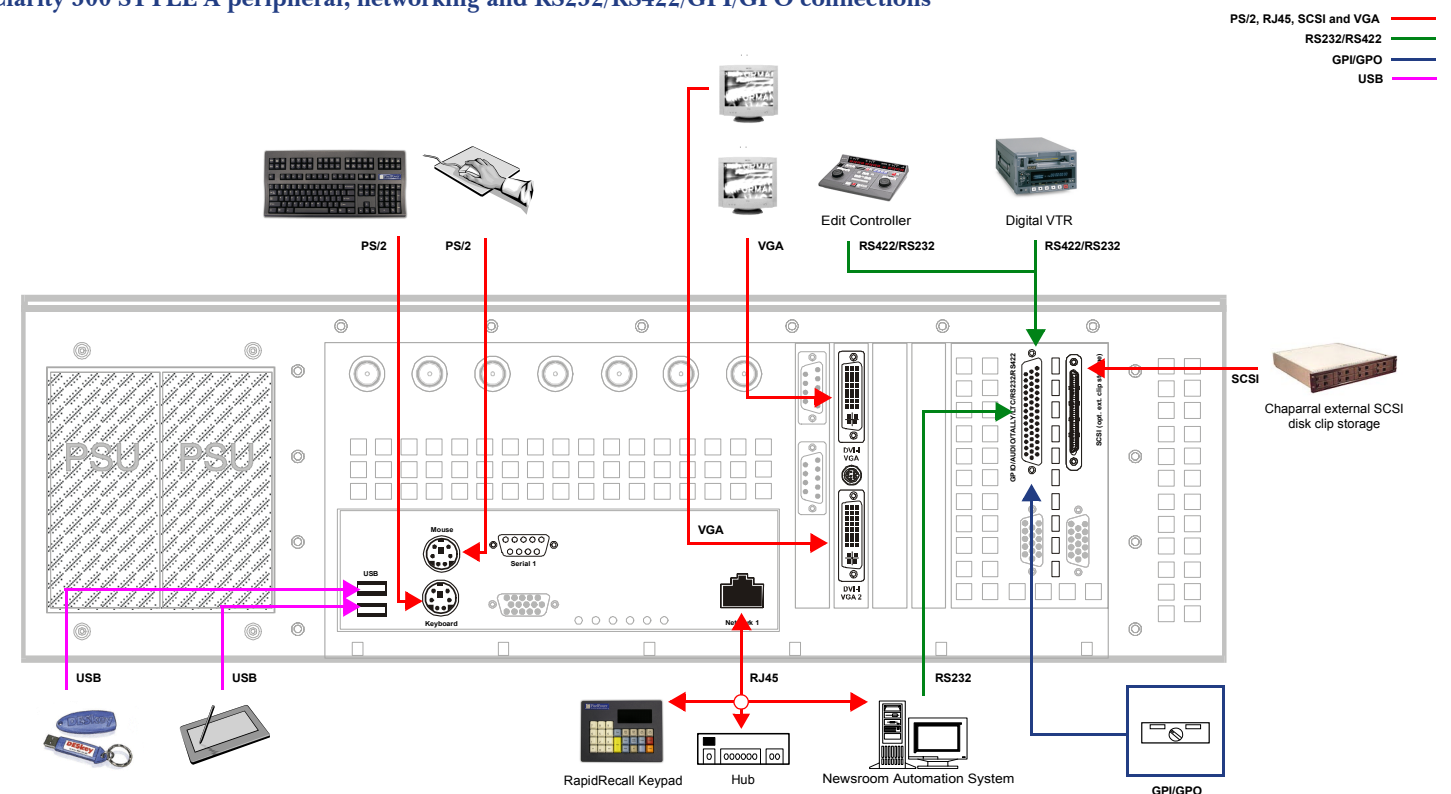
Do not attempt to support the entire weight of a Clarity system unit using only the front fixing points. A rack shelf or set of runners must be used.



# Clarity300

## Quick Start Guide | H059W002\_Rev06 Hardware Installation

### Clarity 300 STYLE A peripheral, networking and RS232/RS422/GPI/GPO connections



**PixelPower**  
broadcast graphics solutions

## Setting up a Clarity 300 system unit [STYLE A]

This section describes how to make all necessary connections to a Clarity 300 system unit. Please refer to the following sections for information.

### Power

Ensure that the mains supply is OFF when connecting or disconnecting the power supply to a system unit.

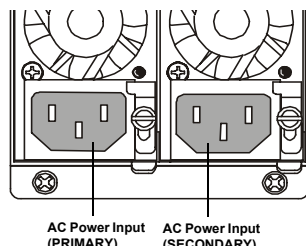


The supplied mains cables shipped with the system unit will match the required type for use in the selected country or region.

### Clarity 300 STYLE A dual-redundant 460W PSU cage

To connect the power, follow the steps below:

- Make sure that the source is suitable.
- Connect the moulded mains lead to the LEFT IEC 3-pin power socket on the rear panel. If the optional second module is fitted, connect the second moulded mains lead to the RIGHT IEC 3-pin power socket on the rear panel.



- Connect the other end of the moulded mains leads to separate redundant mains circuits. Do not turn the unit on until all other connections have been made.

### Mouse and RapidAction keyboard

- A mouse and RapidAction keyboard are supplied with all Clarity 300 system units. Plug the PS/2 compatible mouse 6-pin mini-DIN plug into the top DIN socket (**Mouse**). Plug the RapidAction keyboard 6-pin mini-DIN plug into the bottom DIN socket (**Keyboard**).

### Graphics tablet

- A graphics tablet is an option to Clarity 300 system units. Plug the male USB plug on the cable connecting the tablet into an available USB port (**USB**).

### Network

- If you are connecting a Clarity system unit to your Ethernet 10/100 network, do so using either RJ45 Ethernet 10/100/1000 Network port (**Network 1**). The network ports can also be used to connect newsroom automation systems and RapidRecall keypads.

### SVGA display

- Plug the video cable 24-pin male DVI-I plug of your monitor into the 24-pin female DVI-I output socket (**DVI-I VGA 1**).

24-pin female DVI-I output (provides both ANALOG and DIGITAL video signals). You may require a DVI male to 15-pin VGA adapter for connection to your output display device. The graphics card fitted to your Clarity system unit may feature a second 24-pin female DVI-I output socket (**DVI-I VGA 2**).

### Chaparral external SCSI disk clip storage

- If your system unit features the optional video/audio clip option, plug in the 68-pin male VHDCI plug on the SCSI ULTRA 320 cable into the 68-pin female VHDCI SCSI ULTRA 320 connector (**SCSI (opt. ext. clip storage)**). Plug the other end (68-pin male VHDCI) into the external clip store (Chaparral).

### Digital VTR or Edit Controller

- Plug the 44-pin male D-type plug on the breakout communication cable connecting the VTR or Edit controller into the 44-pin female D-type socket (**GPI/AUDIO/TALLY/LTC/RS232/RS422**).

### Newsroom automation system or RapidRecall keypad

Either:

- Plug the 44-pin male HD D-type plug on the breakout communication cable connecting the Newsroom automation system or RapidRecall keypad into the 44-pin female HD D-type socket (**GPI/AUDIO/TALLY/LTC/RS232/RS422**).

Or:

- Plug the 9-pin female D-type plug on the serial communication cable connecting the Newsroom automation system into the 9-pin male D-type socket (**SERIAL 1**).

The network ports can also be used to connect newsroom automation systems and RapidRecall keypads.

### GPI/GPO switching

- Plug the 44-pin male HD D-type plug on the breakout communication cable connecting the GPI switching device into the 44-pin female HD D-type socket (**GPI/AUDIO/TALLY/LTC/RS232/RS422**).

### SD Video and Audio connections

For more information on these connections, refer to the Clarity Installation, Operational Testing and Maintenance Manual (H059W003).

## What next?

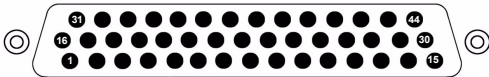
Now that you have connected up your system unit, see overleaf for more information on further documentation resources and cabling guides.

There is no requirement to install the CG Tools software as is already pre-installed on the system unit.

4

## 44-pin high density (HD) female D-type connector

Due to rear panel space limitations, Clarity 300 systems employ a 44-pin female HD D-type socket on the rear panel to enable GPI/O, digital/analogue audio, bypass tally, LTC, RS232 and RS422 signal distribution.



Pin	Connection
1	AES digital audio 1-2 TX+ (from Clarity)
2	AES digital audio 1-2 RX+ (into Clarity)
3	AES digital audio 3-4 TX+
4	AES digital audio 3-4 RX+
5	LTC IN+ (with LTC option) (into Clarity)
6	LTC OUT (unbalanced, with LTC option) (from Clarity)
7	GPI 1 (into Clarity)
8	GPI 2 (into Clarity)
9	GPO 1 normally open
10	GPO 2 normally open
11	RS232 serial port TX (from Clarity)
12	RS232 serial port RX (into Clarity)
13	RS232 serial port RTS (from Clarity)
14	RS232 serial port CTS (into Clarity)
15	Ground (RS232 and GPI/GPO/TALLY)
16	Ground (AES TX 1-2)
17	Ground (AES RX 1-2)
18	Ground (AES TX 3-4)
19	Ground (AES RX 3-4)
20	GPO 3 normally open
21	GPO 3 wiper
22	GPO 4 normally open
23	GPO 4 wiper
24	GPO 1 wiper
25	GPO 2 wiper
26	RS422 serial port TX+ (from Clarity)
27	RS422 serial port TX- (from Clarity)
28	RS422 serial port RX+ (into Clarity)
29	RS422 serial port RX- (into Clarity)
30	Ground (RS422 and GPI/GPO/TALLY)
31	AES digital audio 1-2 TX- (from Clarity)
32	AES digital audio 1-2 RX- (into Clarity)
33	AES digital audio 3-4 TX-
34	AES digital audio 3-4 RX-
35	LTC IN- (with LTC option) (into Clarity)
36	Ground (LTC IN/OUT)
37	GPI 3 (into Clarity)
38	GPI 4 (into Clarity)
39	Analogue audio out - Right (line level unbalanced)
40	Ground (Analogue monitoring audio)
41	Analogue audio out - Left (line level unbalanced)
42	Bypass tally normally open
43	Bypass tally wiper
44	Bypass tally normally closed

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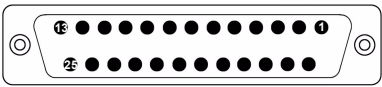
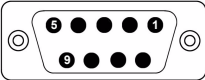
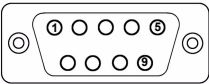






## 44-pin breakout communication cable data



A specialised multi-function cable can be created to distribute and receive signals to respective external devices and peripherals.

The table below identifies all of the connectors that can be utilised, as shown in the picture to the left.

Pin out mapping to respective connectors is only a guide and may be different depending on the equipment you are connecting to.

Connector Description		Pin	44-pin D-type pin	Signal	Connector Illustration
GPI/GPO/TALLY GPI - connect to ground (through a contact closure) for operation, pulled up to +5v at Clarity end GPO relay - up to 30V dc, 0.5A, undedicated contact closure Tally relay - up to 30V dc, 0.5A, undedicated contact change over	25-pin female D-type	1	7	GPI 1	
		2	8	GPI 2	
		3	37	GPI 3	
		4	38	GPI 4	
		5	9	GPO 1 N/O	
		6	24	GPO 1 wiper	
		7	10	GPO 2 N/O	
		8	25	GPO 2 wiper	
		9	15	Ground	
		10	30	Ground	
		11	Not used		
		12	Not used		
		13	42	Bypass tally N/O	
		14	43	Bypass tally wiper	
		15	44	Bypass tally N/C	
		16	20	GPO 3 N/O	
		17	21	GPO 3 wiper	
		18	22	GPO 4 N/O	
		19	23	GPO 4 wiper	
		20	Not used		
		21	Not used		
		22	Not used		
		23	Not used		
		24	Not used		
		25	Not used		
RS422	9-pin female D-type	1	30	RS422 Ground	
		2	29	RS422 RX-	
		3	26	RS422 TX+	
		4	30	RS422 Ground	
		5	Not used		
		6	30	RS422 Ground	
		7	28	RS422 RX+	
		8	27	RS422 TX-	
		9	30	RS422 Ground	
RS232	9-pin male D-type	1	Not used		
		2	12	RS232 RX	
		3	11	RS232 TX	
		4	13	RS232 RTS	
		5	15	RS232 Ground	
		6	Not used		
		7	13	RS232 RTS	
		8	14	RS232 CTS	
		9	Not used		
Digital Audio	AES Audio In A Green Female XLR	1 - Screen	17	Ground	
		2 - Red	2	AES 1-2 RX+	
		3 - Black	32	AES 1-2 RX -	
	AES Audio Out A Red Male XLR	1 - Screen	16	Ground	
		2 - Red	1	AES 1-2 TX+	
		3 - Black	31	AES 1-2 TX -	
	AES Audio In B Blue Female XLR	1 - Screen	19	Ground	
		2 - Red	4	AES 3-4 RX+	
		3 - Black	34	AES 3-4 RX-	
	AES Audio Out B Yel-low Male XLR	1 - Screen	18	Ground	
		2 - Red	3	AES 3-4 TX+	
		3 - Black	33	AES 3-4 TX-	
LTC In	LTC In Black Female XLR	1 - Screen	36	Ground	
		2 - Red	5	LTC IN+	
		3 - Black	35	LTC IN-	
LTC Out	Yellow Phono	Centre	6	LTC Out	
		Screen	36	Ground	
Analogue Audio	Monitor Audio Left Black or White Phono	Centre	41	Left	
		Screen	40	Ground	
	Monitor Audio Right Red Phono	Centre	39	Right	
		Screen	40	Ground	

## Further documentation resources

### Manuals and guides

The following are currently available to support the Clarity range of products and are featured on the Documentation CD-ROM:

Part Number	Title	Purpose	Format
H059W002	Clarity and Clarity PREP Quick Start Guide	Quick guide to the installation of all Clarity 100, 200, 300, 3000, 500 and 5000 systems and the CG Tools software.	Adobe Acrobat PDF
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[http://www.pixelpower.com/support\\_forum.html](http://www.pixelpower.com/support_forum.html)

Your login ID will be sent via email before the close of the next business day. Freelance operators and those who are not otherwise an employee of a Pixel Power user site may request a login ID and password via an e-mail to [support@pixelpower.com](mailto:support@pixelpower.com). Please state clearly the reason for your request. Once we have confirmed your login ID and password via email, you can access the login page for the forums using the following address:

<http://pixelwww.pixelpower.com/cgi-bin/yabb/YaBB.pl>

### Pixel Power Support

Our website features a software support section where you can obtain information about training, submit casual software support queries, view frequently asked questions and download software updates. There is also an product registration page that will enable to you register your product online. For more information about these services, see the following page on our website:

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## Unpacking

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When unpacking, take care not to damage the Clarity system unit or any of the supplied peripherals. When you have unpacked, please retain the packaging in case you need to return the system unit for any reason.

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## Recording important information

2

### Microsoft Windows product key

Before installing the system unit in its final location, please make a note of the Microsoft Windows product key shown on the label on the front of the system unit (behind the removable front panel).

### System unit serial number

If you have not done so already, make a note of the serial number located on the rear panel of the system unit.



### Licence dongle serial number

The USB dongle is pre-installed inside the system chassis during production. This reduces the possibility of the dongle being lost or damaged during transit. For reference purposes, the dongle number is listed on front of the system unit (behind the removable front panel).

## Installing a system unit

3

You can either rack-mount a system unit or leave it free-standing on a desk or other suitable surface. Rack-mounting is the recommended choice.

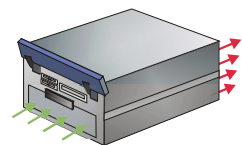
The selected rack must have at least 3U of available space and have adequate rear access to enable the connection and removal of cables and peripherals.

The rack should be located in a clean, dry environment and be in close proximity to power and networking resources.



Ensure there is adequate airflow behind the unit; air is taken in through the front panel filter and exhausted from the rear.

It will be necessary to clean the air filter from time to time; remove it from the front panel and wash in warm water. Dry thoroughly before replacing.



Replacement air filters are available if required.

### Rack-mounting

To rack-mount a 3U Clarity system unit using the optional Pixel Power rack mount kit (PP8118), please refer to the mounting instruction sheet that is supplied with the kit for more information. When fitting the extension slide to the side of a 3U Clarity system unit, use M4 screws no more than 8mm in length.

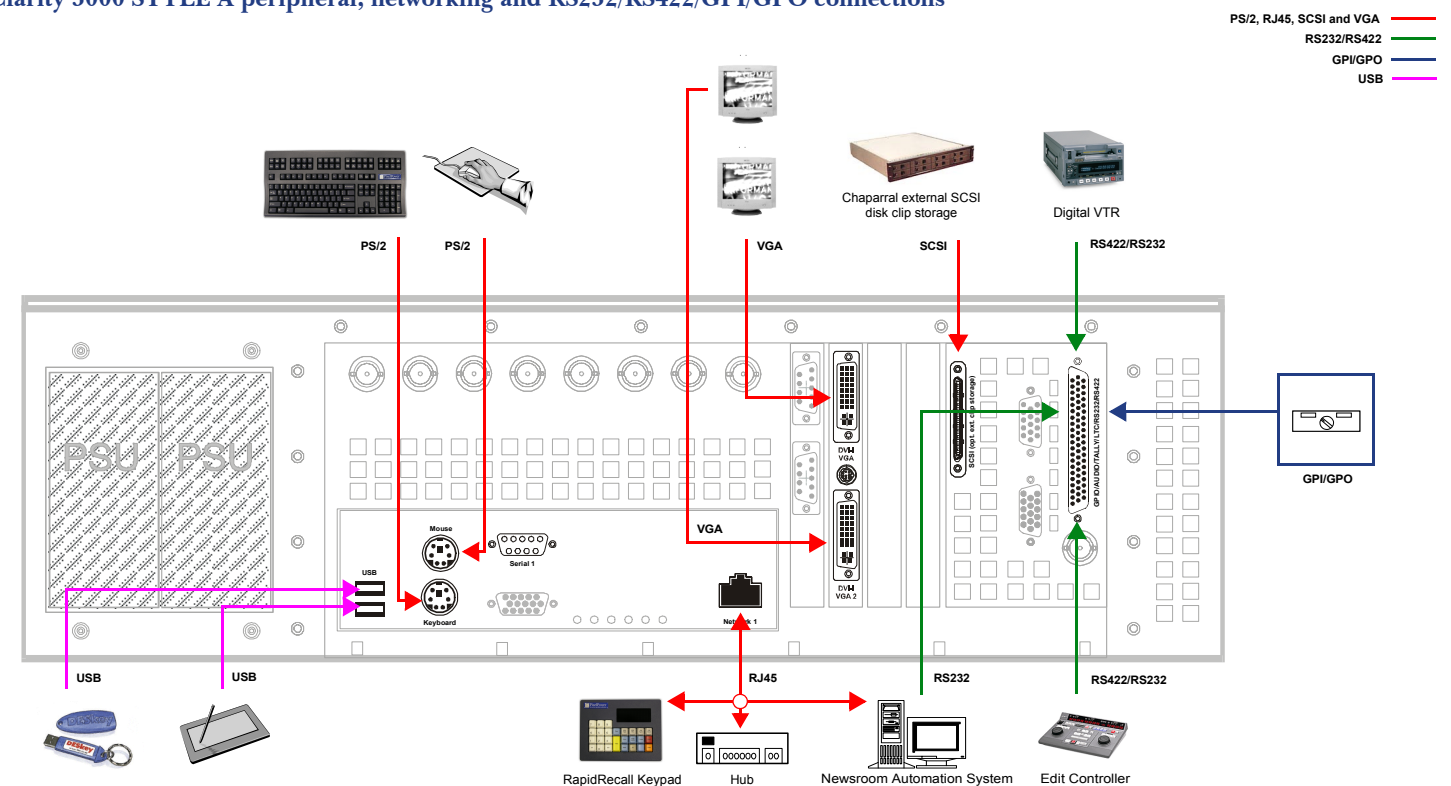
Do not attempt to support the entire weight of a Clarity system unit using only the front fixing points. A rack shelf or set of runners must be used.



# Clarity3000

## Quick Start Guide | H059W002\_Rev06 Hardware Installation

### Clarity 3000 STYLE A peripheral, networking and RS232/RS422/GPI/GPO connections



**PixelPower**  
broadcast graphics solutions

## Setting up a Clarity 3000 system unit [STYLE A]

This section describes how to make all necessary connections to a Clarity 3000 system unit. Please refer to the following sections for information.

### Power

Ensure that the mains supply is OFF when connecting or disconnecting the power supply to a system unit.

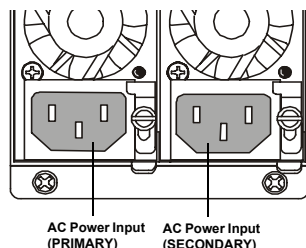


The supplied mains cables shipped with the system unit will match the required type for use in the selected country or region.

### Clarity 3000 STYLE A dual-redundant 460W PSU cage

To connect the power, follow the steps below:

- Make sure that the source is suitable.
- Connect the moulded mains lead to the LEFT IEC 3-pin power socket on the rear panel. If the optional second module is fitted, connect the second moulded mains lead to the RIGHT IEC 3-pin power socket on the rear panel.



- Connect the other end of the moulded mains leads to separate redundant mains circuits. Do not turn the unit on until all other connections have been made.

### Mouse and RapidAction keyboard

- A mouse and RapidAction keyboard are supplied with all Clarity 3000 system units. Plug the PS/2 compatible mouse 6-pin mini-DIN plug into the top DIN socket (**Mouse**). Plug the RapidAction keyboard 6-pin mini-DIN plug into the bottom DIN socket (**Keyboard**).

### Graphics tablet

- A graphics tablet is an option to Clarity 3000 system units. Plug the male USB plug on the cable connecting the tablet into an available USB port (**USB**).

### Network

- If you are connecting a Clarity system unit to your Ethernet 10/100 network, do so using either RJ45 Ethernet 10/100/1000 Network port (**Network 1**). The network ports can also be used to connect newsroom automation systems and RapidRecall keypads.

### SVGA display

- Plug the video cable 24-pin male DVI-I plug of your monitor into the 24-pin female DVI-I output socket (**DVI-I VGA 1**).

24-pin female DVI-I output (provides both ANALOG and DIGITAL video signals). You may require a DVI male to 15-pin VGA adapter for connection to your output display device. The graphics card fitted to your Clarity system unit may feature a second 24-pin female DVI-I output socket (**DVI-I VGA 2**).

### Chaparral external SCSI disk clip storage

- If your system unit features the optional video/audio clip option, plug in the 68-pin male VHDCI plug on the SCSI ULTRA 320 cable into the 68-pin female VHDCI SCSI ULTRA 320 connector (**SCSI (opt. ext. clip storage)**). Plug the other end (68-pin male VHDCI) into the external clip store (Chaparral).

### Digital VTR or Edit Controller

- Plug the 62-pin male D-type plug on the breakout communication cable connecting the VTR or Edit controller into the 62-pin female D-type socket (**GPI/AUDIO/TALLY/LTC/RS232/RS422**).

### Newsroom automation system or RapidRecall keypad

Either:

- Plug the 62-pin male HD D-type plug on the breakout communication cable connecting the Newsroom automation system or RapidRecall keypad into the 62-pin female HD D-type socket (**GPI/AUDIO/TALLY/LTC/RS232/RS422**).

Or:

- Plug the 9-pin female D-type plug on the serial communication cable connecting the Newsroom automation system into the 9-pin male D-type socket (**SERIAL 1**).

The network ports can also be used to connect newsroom automation systems and RapidRecall keypads.

### GPI/GPO switching

- Plug the 62-pin male HD D-type plug on the breakout communication cable connecting the GPI switching device into the 62-pin female HD D-type socket (**GPI/AUDIO/TALLY/LTC/RS232/RS422**).

### SD Video and Audio connections

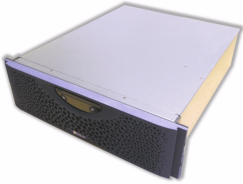
For more information on these connections, refer to the Clarity Installation, Operational Testing and Maintenance Manual (H059W003).

## What next?

Now that you have connected up your system unit, see overleaf for more information on further documentation resources and cabling guides.

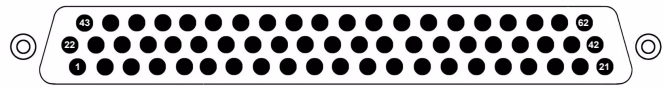
There is no requirement to install the CG Tools software as is already pre-installed on the system unit.

4



62-pin high density (HD) female  
D-type connector

Due to rear panel space limitations, Clarity 3000 systems employ a 62-pin female HD D-type socket on the rear panel to enable GPI/O, digital/analogue audio, bypass/watchdog tally, LTC, RS232 and RS422 signal distribution.



Pin	Connections
1	AES digital audio 1-2 RX+ (into Clarity)
2	AES digital audio 1-2 TX+ (from Clarity)
3	AES digital audio 3-4 RX+
4	AES digital audio 3-4 TX+
5	AES digital audio 5-6 RX+
6	AES digital audio 5-6 TX+
7	AES digital audio 7-8 RX+
8	AES digital audio 7-8 TX+
9	LTC IN+ (with LTC option) (into Clarity)
10	Relay bypass tally (normally closed when bypassed)
11	Watchdog bypass tally (normally closed when bypassed)
12	GPI 1 (ground to activate, do not drive high above +5v) (into Clarity)
13	GPI 3 (ground to activate, do not drive high above +5v) (into Clarity)
14	GPO 1 (normally open when GPO inactive)
15	GPO 2 (normally open when GPO inactive)
16	GPO 3 (normally open when GPO inactive)
17	GPO 4 (normally open when GPO inactive)
18	RS422 TX+ (from Clarity)
19	RS422 RX+ (into Clarity)
20	Ground (RS422)
21	Analogue audio out - Left (line level unbalanced) (from Clarity)
22	Ground (AES RX 1-2) (LTC OUT)
23	Ground (AES TX 1-2)
24	Ground (AES RX 3-4)
25	Ground (AES TX 3-4)
26	Ground (AES RX 5-6)
27	Ground (AES TX 5-6)
28	Ground (AES RX 7-8)
29	Ground (AES TX 7-8)
30	Ground (LTC IN)
31	Relay bypass tally wiper
32	Watchdog bypass tally wiper
33	Ground
34	Ground
35	GPO 1 wiper
36	GPO 2 wiper
37	GPO 3 wiper
38	GPO 4 wiper
39	RS422 TX- (from Clarity)
40	RS422 RX- (into Clarity)
41	Ground (RS422)
42	Ground (Audio)
43	AES digital audio 1-2 RX- (into Clarity)
44	AES digital audio 1-2 TX- (from Clarity)
45	AES digital audio 3-4 RX-
46	AES digital audio 3-4 TX-
47	AES digital audio 5-6 RX-
48	AES digital audio 5-6 TX-
49	AES digital audio 7-8 RX-
50	AES digital audio 7-8 TX-
51	LTC IN- (with LTC option) (into Clarity)
52	Relay bypass tally (normally open when bypassed)
53	Watchdog bypass tally (normally open when bypassed)
54	GPI 2 (ground to activate, do not drive high above +5v) (into Clarity)
55	GPI 4 (ground to activate, do not drive high above +5v) (into Clarity)
56	LTC OUT (with LTC option) (from Clarity)
57	RS232 RXD (into Clarity)
58	RS232 TXD (from Clarity)
59	RS232 RTS (from Clarity)
60	RS232 CTS (into Clarity)
61	Ground (RS232)
62	Analogue audio out - Right (line level unbalanced) (from Clarity)

Notes

GPI - connect to ground (through a contact closure) for operation, pulled up to +5v at Clarity end.  
GPO relay - up to 30V dc, 0.5A, undedicated contact closure.  
Tally relay - up to 30V dc, 0.5A, undedicated contact change over.  
AES inputs have power fail relay bypass to AES outputs. Power fail bypass state is indicated by Relay Bypass Tally.

Further documentation resources

Manuals and guides

The following are currently available to support the Clarity range of products and are featured on the Documentation CD-ROM:

Part Number	Title	Purpose	Format
H059W002	Clarity and Clarity PREP Quick Start Guide	Quick guide to the installation of all Clarity 100, 200, 300, 3000, 500 and 5000 systems and the CG Tools software.	Adobe Acrobat PDF
H059W003	Clarity Installation, Operational Testing and Maintenance Manual	Full installation guide detailing specifications, installation, connectivity and maintenance.	Adobe Acrobat PDF
H059W004	CG Tools Online Help/Reference Manual	Provides both an in-depth guide to the features and functionality of the CG Tools software and also a day-to-day reference to the software's user interface including menus and dialog boxes.	HTMLHelp or Adobe Acrobat PDF

Software release information

Separate software release notes in Adobe Acrobat format previously accompanied every periodic CG Tools software release. Release information now forms part of the CG Tools Online Help/Reference Manual (H059W004) reference and is updated for every periodic CG Tools release. Release notes can be found in the "Release notes" section. Release note information features known problems, new features, bug fixes and updates to documentation not linked to current or previous releases.

User-to-User forums

The online support forums are available to any bona fide Pixel Power user with a valid software maintenance agreement. This includes all Pixel Power users during the first year after purchasing their Collage, Graphite, Clarity or Collette systems. To gain access to the online user support forums you will need a login ID and password. Please complete and submit the short form via the following link:

[http://www.pixelpower.com/support\\_forum.html](http://www.pixelpower.com/support_forum.html)

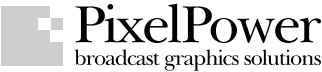
Your login ID will be sent via email before the close of the next business day. Freelance operators and those who are not otherwise an employee of a Pixel Power user site may request a login ID and password via an e-mail to support@pixelpower.com. Please state clearly the reason for your request. Once we have confirmed your login ID and password via email, you can access the login page for the forums using the following address:

<http://pixelwww.pixelpower.com/cgi-bin/yabb/YaBB.pl>

Pixel Power Support

Our website features a software support section where you can obtain information about training, submit casual software support queries, view frequently asked questions and download software updates. There is also an product registration page that will enable to you register your product online. For more information about these services, see the following page on our website:

<http://www.pixelpower.com/support.html>



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## Unpacking

When unpacking, take care not to damage the Clarity system unit or any of the supplied peripherals. When you have unpacked, please retain the packaging in case you need to return the system unit for any reason.

Do not return the system unit unless it is properly packed. If you have any doubts, contact Pixel Power.

The graphics tablet (if supplied), keyboard and manual are packed separately; again, check for damage and inform the shipper immediately if there are any visible signs of damage. Please refer to the packing list included with the product documentation. If anything appears to be missing, please contact your dealer in the first instance.

## Recording important information

### Microsoft Windows product key

Before installing the system unit in its final location, please make a note of the Microsoft Windows product key shown on the label on the rear panel or behind the removable front panel on the system unit.

### System unit serial number

If you have not done so already, make a note of the serial number located on the rear panel of the system unit.

### Licence dongle serial number

If you have not done so already, make a note of the serial number located on the licence dongle supplied with the system unit.



## Installing a system unit

You can either rack-mount a system unit or leave it free-standing on a desk or other suitable surface. Rack-mounting is the recommended choice.

The selected rack must have at least 5U of available space and have adequate rear access to enable the connection and removal of cables and peripherals.

The rack should be located in a clean, dry environment and be in close proximity to power and networking resources.

Ensure there is adequate airflow behind the unit; air is taken in through the front panel filter and exhausted from the rear.

It will be necessary to clean the air filter from time to time; remove it from the front panel and wash in warm water. Dry thoroughly before replacing.

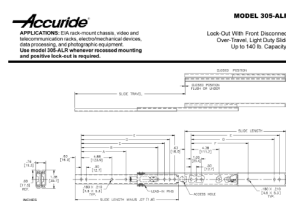
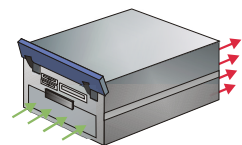
Replacement air filters are available if required.

### Rack-mounting

To rack-mount a Clarity system unit using the optional recessable 0305 Accuride 100%+ Extension Slide, please refer to the 305-ALR Accuride Mounting Instruction Sheet that is supplied with the kit for more information.

When fitting the extension slide to the side of a Clarity system unit, use M4 screws no more than 8mm in length.

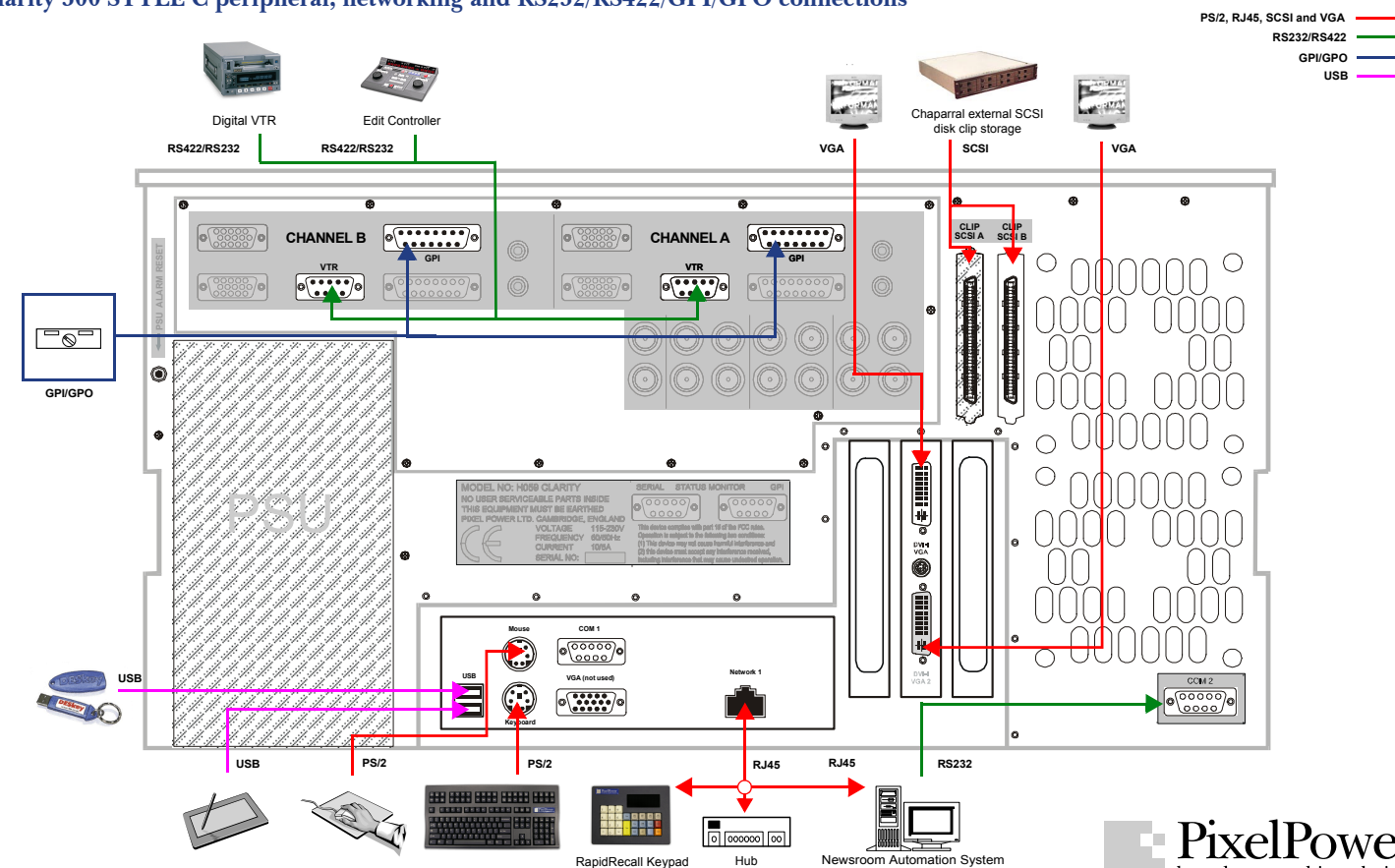
Do not attempt to support the entire weight of a Clarity system unit using only the front fixing points. A rack shelf or set of runners must be used.



# Clarity500

## Quick Start Guide | H059W002\_Rev06 Hardware Installation

### Clarity 500 STYLE C peripheral, networking and RS232/RS422/GPI/GPO connections



**PixelPower**  
broadcast graphics solutions

## Setting up a Clarity 500 system unit [STYLE C]

This section describes how to make all necessary connections to a Clarity 500 system unit. Please refer to the following sections for information.

### Power

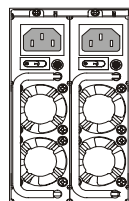
Ensure that the mains supply is OFF when connecting or disconnecting the power supply to a system unit.

The supplied mains cables shipped with the system unit will match the required type for use in the selected country or region.

### Standard dual-redundant 500W PSU cage (100-230V~60/50Hz)

To connect the power, follow the steps below:

- Make sure that the source is suitable.
- Connect the moulded mains lead to the LEFT IEC 3-pin power socket on the rear panel. If the optional second module is fitted, connect the second moulded mains lead to the RIGHT IEC 3-pin power socket on the rear panel.
- Connect the other end of the moulded mains leads to separate redundant mains circuits. Do not turn the unit on until all other connections have been made.



### Mouse and RapidAction keyboard

- A mouse and RapidAction keyboard are supplied with all Clarity 500 system units. Plug the PS/2 compatible mouse 6-pin mini-DIN plug into the top DIN socket (**Mouse**). Plug the RapidAction keyboard 6-pin mini-DIN plug into the bottom DIN socket (**Keyboard**).

### Graphics tablet

- A graphics tablet is an option to Clarity 500 system units. Plug the male USB plug on the cable connecting the tablet into an available USB port (**USB**).

### Licence dongle

- Plug the supplied Licence Dongle into an available USB port (**USB**). This MUST be fitted for the software to operate correctly.

### Network

If you are connecting a Clarity system unit to your Ethernet 10/100/1000 network, do so using the RJ45 Ethernet 10/100/1000 Network port (**Network 1**). The network port can also be used to connect newsroom automation systems and RapidRecall keypads.

### SVGA display

- Plug the video cable 24-pin male DVI-I plug of your monitor into the 24-pin female DVI-I output socket (**DVI-I VGA 1**).

24-pin female DVI-I output (provides both ANALOG and DIGITAL video signals). You may require a DVI male to 15-pin VGA adapter for connection to your output display device. The graphics card fitted to your Clarity system unit may feature a second 24-pin female DVI-I output socket (**DVI-I VGA 2**).

### Chaparral external SCSI disk clip storage

- If your system unit features the optional video/audio clip option, plug in the 68-pin male HD D-type plug on the SCSI ULTRA 320 cable into an available 68-pin female HD D-type ULTRA SCSI 320 connector (**CLIP SCSI A**) (**CLIP SCSI B**). Plug the other end (68-pin male VHDCI) into the external clip store (Chaparral).

If your system unit features the optional internal clip storage, then only the right-hand 68-pin female HD D-type connector (**CLIP SCSI B**) will be available for the external clip storage; the left-hand socket (**CLIP SCSI A**) will be blanked as this SCSI ULTRA 320 bus is used by the internal clip store.

### Digital SD VTR or Edit Controller

- Plug the 9-pin male D-type plug on the communication cable connecting the VTR or Edit controller into the 9-pin female D-type socket (**VTR**).

This 9-pin male D-type socket is configurable between RS422 and RS232 operation.

### Newsroom automation system or RapidRecall keypad

- Plug the 9-pin female D-type plug on the serial communication cable connecting the Newsroom automation system into the 9-pin male D-type socket (**COM 2**).

The network port can also be used to connect newsroom automation systems and RapidRecall keypads.

### GPI/GPO switching

- Plug the 15-pin male D-type plug on the communication cable connecting the GPI switching device into the 15-pin female D-type socket (**GPI**).

### SD Video and Audio connections

For more information on these connections, refer to the Clarity Installation, Operational Testing and Maintenance Manual (H059W003).

## What next?

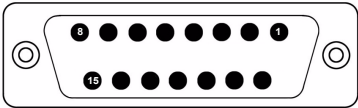
Now that you have connected up your system unit, see overleaf for more information on further documentation resources and cabling guides.

There is no requirement to install the CG Tools software as is already pre-installed on the system unit.



AUDIO 15-pin standard density female D-type connector

Clarity 500 systems employ a 15-pin female D-type socket labelled **AUDIO** on the rear panel to enable digital audio and LTC signal distribution.



Pin	Connection
1	AES digital audio 1-2 TX+ (from Clarity)
2	AES digital audio 1-2 TX- (from Clarity)
3	Ground
4	AES digital audio 1-2 RX+ (into Clarity)
5	AES digital audio 1-2 RX- (into Clarity)
6	Ground
7	LTC IN + (with LTC option) (into Clarity)
8	LTC IN - (with LTC option) (into Clarity)
9	Ground
10	AES digital audio 3-4 TX+ (from Clarity)
11	AES digital audio 3-4 TX- (from Clarity)
12	Ground
13	AES digital audio 3-4 RX+ (into Clarity)
14	AES digital audio 3-4 RX- (into Clarity)
15	Ground

15-pin breakout digital audio/LTC cable data



A specialised multi-function cable can be created to distribute and receive signals to respective external devices and peripherals.

The table below identifies all of the connectors that can be utilised, as shown in the picture to the left.

Pin out mapping to respective connectors is only a guide and may be different depending on the equipment you are connecting to.

Connector Description		Pin	15-pin D-type pin	Signal	Connector Illustration
Digital Audio	AES Audio In A Green Female XLR	1 - Screen	12	Ground	
		2 - Red	4	AES 1-2 RX+	
		3 - Black	5	AES 1-2 RX -	
	AES Audio Out A Red Male XLR	1 - Screen	9	Ground	
		2 - Red	1	AES 1-2 TX+	
		3 - Black	2	AES 1-2 TX -	
	AES Audio In B Blue Female XLR	1 - Screen	6	Ground	
		2 - Red	13	AES 3-4 RX+	
		3 - Black	14	AES 3-4 RX-	
	AES Audio Out B Yellow Male XLR	1 - Screen	3	Ground	
		2 - Red	10	AES 3-4 TX+	
		3 - Black	11	AES 3-4 TX-	
LTC In	LTC In Black Female XLR	1 - Screen	15	Ground	
		2 - Red	7	LTC IN+	
		3 - Black	8	LTC IN-	

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Further documentation resources

Manuals and guides

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H059W003	Clarity Installation, Operational Testing and Maintenance Manual	Full installation guide detailing specifications, installation, connectivity and maintenance.	Adobe Acrobat PDF
H059W004	CG Tools Online Help/Reference Manual	Provides both an in-depth guide to the features and functionality of the CG Tools software and also a day-to-day reference to the software's user interface including menus and dialog boxes.	HTMLHelp or Adobe Acrobat PDF

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[http://www.pixelpower.com/support\\_forum.html](http://www.pixelpower.com/support_forum.html)

Your login ID will be sent via email before the close of the next business day. Freelance operators and those who are not otherwise an employee of a Pixel Power user site may request a login ID and password via an e-mail to [support@pixelpower.com](mailto:support@pixelpower.com). Please state clearly the reason for your request. Once we have confirmed your login ID and password via email, you can access the login page for the forums using the following address:

<http://pixelwww.pixelpower.com/cgi-bin/yabb/YaBB.pl>

Pixel Power Support

Our website features a software support section where you can obtain information about training, submit casual software support queries, view frequently asked questions and download software updates. There is also an product registration page that will enable to you register your product online. For more information about these services, see the following page on our website:

<http://www.pixelpower.com/support.html>



## Unpacking

1

When unpacking, take care not to damage the Clarity system unit or any of the supplied peripherals. When you have unpacked, please retain the packaging in case you need to return the system unit for any reason.

Do not return the system unit unless it is properly packed. If you have any doubts, contact Pixel Power.



The graphics tablet (if supplied), keyboard and manual are packed separately; again, check for damage and inform the shipper immediately if there are any visible signs of damage. Please refer to the packing list included with the product documentation. If anything appears to be missing, please contact your dealer in the first instance.

## Recording important information

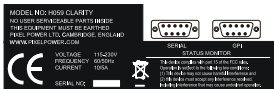
2

### Microsoft Windows product key

Before installing the system unit in its final location, please make a note of the Microsoft Windows product key shown on the label on the rear panel or behind the removable front panel on the system unit.

### System unit serial number

If you have not done so already, make a note of the serial number located on the rear panel of the system unit.



### Licence dongle serial number

If you have not done so already, make a note of the serial number located on the licence dongle supplied with the system unit.



## Installing a system unit

3

You can either rack-mount a system unit or leave it free-standing on a desk or other suitable surface. Rack-mounting is the recommended choice.

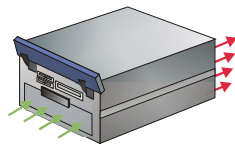
The selected rack must have at least 5U of available space and have adequate rear access to enable the connection and removal of cables and peripherals.

The rack should be located in a clean, dry environment and be in close proximity to power and networking resources.



Ensure there is adequate airflow behind the unit; air is taken in through the front panel filter and exhausted from the rear.

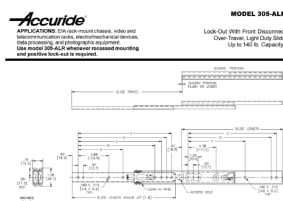
It will be necessary to clean the air filter from time to time; remove it from the front panel and wash in warm water. Dry thoroughly before replacing.



Replacement air filters are available if required.

### Rack-mounting

To rack-mount a Clarity system unit using the optional recessable 0305 Accuride 100%+ Extension Slide, please refer to the 305-ALR Accuride Mounting Instruction Sheet that is supplied with the kit for more information.



When fitting the extension slide to the side of a Clarity system unit, use M4 screws no more than 8mm in length.

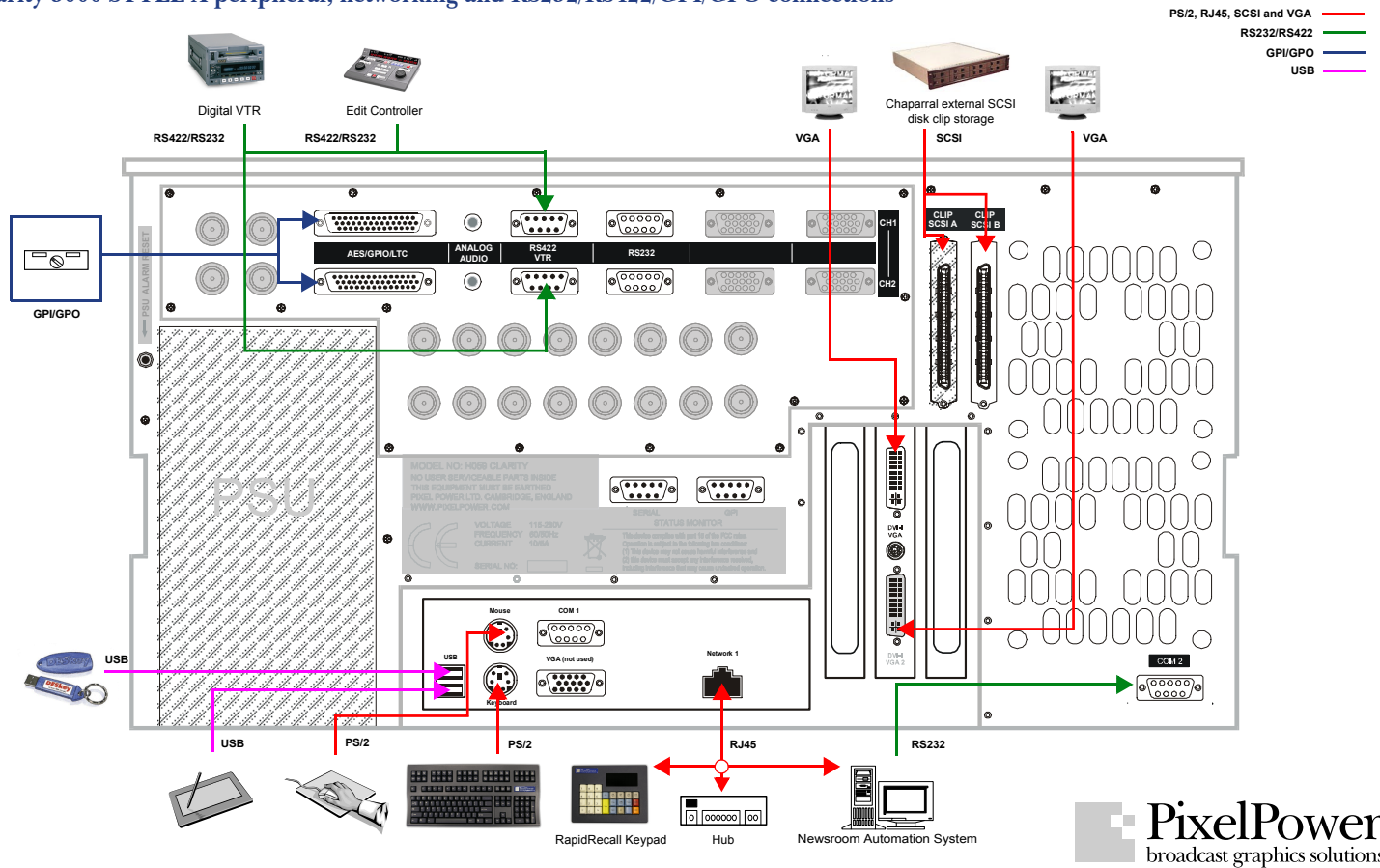
Do not attempt to support the entire weight of a Clarity system unit using only the front fixing points. A rack shelf or set of runners must be used.



# Clarity5000

## Quick Start Guide | H059W002\_Rev06 Hardware Installation

### Clarity 5000 STYLE A peripheral, networking and RS232/RS422/GPI/GPO connections



**PixelPower**  
broadcast graphics solutions

## Setting up a Clarity 5000 system unit [STYLE A]

This section describes how to make all necessary connections to a Clarity 5000 system unit. Please refer to the following sections for information.

### Power

Ensure that the mains supply is OFF when connecting or disconnecting the power supply to a system unit.

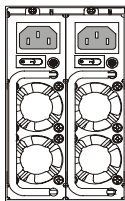


The supplied mains cables shipped with the system unit will match the required type for use in the selected country or region.

### Standard dual-redundant 500W PSU cage (100-230V~60/50Hz)

To connect the power, follow the steps below:

- Make sure that the source is suitable.
- Connect the moulded mains lead to the LEFT IEC 3-pin power socket on the rear panel. If the optional second module is fitted, connect the second moulded mains lead to the RIGHT IEC 3-pin power socket on the rear panel.
- Connect the other end of the moulded mains leads to separate redundant mains circuits. Do not turn the unit on until all other connections have been made.



### Mouse and RapidAction keyboard

- A mouse and RapidAction keyboard are supplied with all Clarity 5000 system units. Plug the PS/2 compatible mouse 6-pin mini-DIN plug into the top DIN socket (**Mouse**). Plug the RapidAction keyboard 6-pin mini-DIN plug into the bottom DIN socket (**Keyboard**).

### Graphics tablet

- A graphics tablet is an option to Clarity 5000 system units. Plug the male USB plug on the cable connecting the tablet into an available USB port (**USB**).

### Licence dongle

- Plug the supplied Licence Dongle into an available USB port (**USB**). This MUST be fitted for the software to operate correctly.

### Network

- If you are connecting a Clarity system unit to your Ethernet 10/100/1000 network, do so using the RJ45 Ethernet 10/100/1000 Network port (**Network 1**). The network port can also be used to connect newsroom automation systems and RapidRecall keypads.

### SVGA display

- Plug the video cable 24-pin male DVI-I plug of your monitor into the 24-pin female DVI-I output socket (**DVI-I VGA 1**).

24-pin female DVI-I output (provides both ANALOG and DIGITAL video signals). You may require a DVI male to 15-pin VGA adapter for connection to your output display device. The graphics card fitted to your Clarity system unit may feature a second 24-pin female DVI-I output socket (**DVI-I VGA 2**).

### Chaparral external SCSI disk clip storage

- If your system unit features the optional video/audio clip option, plug in the 68-pin male HD D-type plug on the SCSI ULTRA 320 cable into an available 68-pin female HD D-type ULTRA SCSI 320 connector (**CLIP SCSI A**) (**CLIP SCSI B**). Plug the other end (68-pin male VHDCI) into the external clip store (Chaparral).

If your system unit features the optional internal clip storage, then only the right-hand 68-pin female HD D-type connector (**CLIP SCSI B**) will be available for the external clip storage; the left-hand socket (**CLIP SCSI A**) will be blanked as this SCSI ULTRA 320 bus is used by the internal clip store.

### Digital VTR or Edit Controller

- Plug the 9-pin male D-type plug on the communication cable connecting the VTR or Edit controller into the 9-pin female D-type socket (**RS422 VTR**).

### Newsroom automation system or RapidRecall keypad

- Plug the 9-pin female D-type plug on the serial communication cable connecting the Newsroom automation system into the 9-pin male D-type socket (**COM 2**).

The network port can also be used to connect newsroom automation systems and RapidRecall keypads.

### GPI/GPO switching

- Plug the 15-pin male D-type plug on the communication cable connecting the GPI switching device into the 15-pin female D-type socket (**GPI**).

### SD/HD Video and Audio connections

For more information on these connections, refer to the Clarity Installation, Operational Testing and Maintenance Manual (H059W003).

## What next?

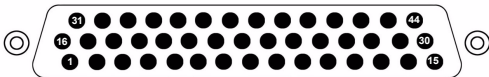
Now that you have connected up your system unit, see overleaf for more information on further documentation resources and cabling guides.

There is no requirement to install the CG Tools software as is already pre-installed on the system unit.

4

## 44-pin high density (HD) female D-type connector

Due to rear panel space limitations, Clarity 5000 systems employ a 44-pin female HD D-type socket on their respective rear panels to enable GPI/O, digital audio, bypass/watchdog tally and LTC signal distribution.



Pin	Connections
1	AES digital audio 1-2 RX+ (into Clarity)
2	AES digital audio 1-2 TX+ (from Clarity)
3	AES digital audio 3-4 RX+
4	AES digital audio 3-4 TX+
5	AES digital audio 5-6 RX+
6	AES digital audio 5-6 TX+
7	AES digital audio 7-8 RX+
8	AES digital audio 7-8 TX+
9	LTC IN+ (with LTC option) (into Clarity)
10	Relay bypass tally (normally closed when bypassed)
11	Watchdog bypass tally (normally closed when bypassed)
12	GPI 1 (ground to activate, do not drive high above +5v) (into Clarity)
13	GPI 3 (ground to activate, do not drive high above +5v) (into Clarity)
14	GPO 1 (normally open when GPO inactive)
15	GPO 2 (normally open when GPO inactive)
16	Ground (AES RX 1-2) (LTC OUT)
17	Ground (AES TX 1-2)
18	Ground (AES RX 3-4)
19	Ground (AES TX 3-4)
20	Ground (AES RX 5-6)
21	Ground (AES TX 5-6)
22	Ground (AES RX 7-8)
23	Ground (AES TX 7-8)
24	Ground (LTC IN)
25	Relay bypass tally wiper
26	Watchdog bypass tally wiper
27	Ground
28	Ground
29	GPO 1 wiper
30	GPO 2 wiper
31	AES digital audio 1-2 RX- (into Clarity)
32	AES digital audio 1-2 TX- (from Clarity)
33	AES digital audio 3-4 RX-
34	AES digital audio 3-4 TX-
35	AES digital audio 5-6 RX-
36	AES digital audio 5-6 TX-
37	AES digital audio 7-8 RX-
38	AES digital audio 7-8 TX-
39	LTC IN- (with LTC option) (into Clarity)
40	Relay bypass tally (normally open when bypassed)
41	Watchdog bypass tally (normally open when bypassed)
42	GPI 2 (ground to activate, do not drive high above +5v) (into Clarity)
43	GPI 4 (ground to activate, do not drive high above +5v) (into Clarity)
44	LTC OUT (with LTC option) (from Clarity)

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## 44-pin breakout communication cable data

A specialised multi-function cable can be created to distribute and receive signals to respective external devices and peripherals.

The table below identifies all of the connectors that can be utilised.

Pin out mapping to respective connectors is only a guide and may be different depending on the equipment you are connecting to.

Connector Description		Pin	44-pin D-type pin	Signal	Connector Illustration
GPI/GPO/ WATCH DOG BYPASS TALLY	25-pin female D-type	1	12	GPI 1 (ground to activate, do not drive high above +5v)	
		2	42	GPI 2 (ground to activate, do not drive high above +5v)	
		3	13	GPI 3 (ground to activate, do not drive high above +5v)	
		4	43	GPI 4 (ground to activate, do not drive high above +5v)	
		5	14	GPO 1 (normally open when GPO inactive)	
		6	29	GPO 1 wiper	
		7	15	GPO 2 (normally open when GPO inactive)	
		8	30	GPO 2 wiper	
		9	10	Relay bypass tally (normally closed when bypassed)	
		10	25	Relay bypass tally wiper	
		11	40	Relay bypass tally (normally open when bypassed)	
		12	Not used		
		13	Not used		
		14	27	Ground	
		15	27	Ground	
		16	28	Ground	
		17	28	Ground	
		18	11	Watchdog bypass tally (normally closed when bypassed)	
		19	26	Watchdog bypass tally wiper	
		20	41	Watchdog bypass tally (normally open when bypassed)	
		21	Not used		
		22	Not used		
		23	Not used		
		24	Not used		
		25	Not used		
Digital Audio	AES Audio In A Green Female XLR	1 - Screen	16	Ground	
		2 - Red	1	AES 1-2 RX+	
		3 - Black	31	AES 1-2 RX -	
	AES Audio Out A Red Male XLR	1 - Screen	17	Ground	
		2 - Red	2	AES 1-2 TX+	
		3 - Black	32	AES 1-2 TX -	
	AES Audio In B Blue Female XLR	1 - Screen	18	Ground	
		2 - Red	3	AES 3-4 RX+	
		3 - Black	33	AES 3-4 RX-	
	AES Audio Out B Yellow Male XLR	1 - Screen	19	Ground	
		2 - Red	4	AES 3-4 TX+	
		3 - Black	34	AES 3-4 TX-	
	AES Audio In C Violet Female XLR	1 - Screen	20	Ground	
		2 - Red	5	AES 5-6 RX+	
		3 - Black	35	AES 5-6 RX -	
	AES Audio Out C Grey Male XLR	1 - Screen	21	Ground	
		2 - Red	6	AES 5-6 TX+	
		3 - Black	36	AES 5-6 TX -	
	AES Audio In D White Female XLR	1 - Screen	22	Ground	
		2 - Red	7	AES 7-8 RX+	
		3 - Black	37	AES 7-8 RX-	
	AES Audio Out D Orange Male XLR	1 - Screen	23	Ground	
		2 - Red	8	AES 7-8 TX+	
		3 - Black	38	AES 7-8 TX-	
LTC In	LTC In Black Female XLR	1 - Screen	24	Ground	
		2 - Red	9	LTC IN+	
		3 - Black	39	LTC IN-	
LTC Out	Yellow Phono	Centre	44	LTC Out	
		Screen	16	Ground	

## Further documentation resources

### Manuals and guides

The following are currently available to support the Clarity range of products and are featured on the Documentation CD-ROM:

Part Number	Title	Purpose	Format
H059W002	Clarity and Clarity PREP Quick Start Guide	Quick guide to the installation of all Clarity 100, 200, 300, 3000, 500 and 5000 systems and the CG Tools software.	Adobe Acrobat PDF
H059W003	Clarity Installation, Operational Testing and Maintenance Manual	Full installation guide detailing specifications, installation, connectivity and maintenance.	Adobe Acrobat PDF
H059W004	CG Tools Online Help/Reference Manual	Provides both an in-depth guide to the features and functionality of the CG Tools software and also a day-to-day reference to the software's user interface including menus and dialog boxes.	HTMLHelp or Adobe Acrobat PDF

### Software release information

Separate software release notes in Adobe Acrobat format previously accompanied every periodic CG Tools software release. Release information now forms part of the CG Tools Online Help/Reference Manual (H059W004) reference and is updated for every periodic CG Tools release. Release notes can be found in the "Release notes" section. Release note information features known problems, new features, bug fixes and updates to documentation not linked to current or previous releases.

### User-to-User forums

The online support forums are available to any bona fide Pixel Power user with a valid software maintenance agreement. This includes all Pixel Power users during the first year after purchasing their Collage, Graphite, Clarity or Collette systems. To gain access to the online user support forums you will need a login ID and password. Please complete and submit the short form via the following link:

[http://www.pixelpower.com/support\\_forum.html](http://www.pixelpower.com/support_forum.html)

Your login ID will be sent via email before the close of the next business day. Freelance operators and those who are not otherwise an employee of a Pixel Power user site may request a login ID and password via an e-mail to [support@pixelpower.com](mailto:support@pixelpower.com). Please state clearly the reason for your request. Once we have confirmed your login ID and password via email, you can access the login page for the forums using the following address:

<http://pixelwww.pixelpower.com/cgi-bin/yabb/YaBB.pl>

### Pixel Power Support

Our website features a software support section where you can obtain information about training, submit casual software support queries, view frequently asked questions and download software updates. There is also an product registration page that will enable to you register your product online. For more information about these services, see the following page on our website:

<http://www.pixelpower.com/support.html>



Unpacking

1

When you have unpacked, please retain the packaging in case you need to return the CD-ROM for any reason. Please refer to the packing list included with the product documentation. If anything appears to be missing, please contact your dealer in the first instance.

Software licensing

When purchasing multiple copies of Clarity PREP or Clarity Plugin, you had the option to a) purchase single licences for each copy (one physical licence dongle per copy) or b) purchase a single floating licence for multiple copies (one physical licence dongle for all copies).

If you have chosen the first option and are in receipt of multiple dongles, a client version of the DK2 DESkey licensing software is installed as part of each CG Tools software installation.

If you have chosen the second option and are in receipt of a single dongle, this dongle should be installed on a machine enlisted to be the licence server machine.

This machine should be accessible via the local area network from all machines running the Clarity PREP or Clarity Plugin software. The machine enlisted as the network licence server must be installed with the following:

- the single blue USB licence dongle;
- a copy of the DK2 DESKey Driver SERVER licensing software.

See overleaf for more details on installing the DK2 DESKey Network Server software on the machine enlisted as the network licence server.

Recording important information

2

Licence dongle serial numbers

If you have not done so already, make a note of the serial number located on any of the licence dongles supplied with the CD-ROM.



Setting up a PC

This section describes how to make sure that the selected PC is correctly configured for the subsequent use of the Clarity PREP and Clarity Plugin software.

RapidAction Keyboard (optional)

- Plug the RapidAction PS/2 keyboard 6-pin mini-DIN plug into the PS/2 DIN socket on the rear panel of the PC.

Graphics tablet (optional)

- A graphics tablet is an option with Clarity PREP or Clarity Plugin software. Plug the male USB plug on the cable connecting the tablet into an available USB port (USB).

License dongle (single licence)

- Plug the supplied Licence Dongle into an available USB port (USB). This MUST be fitted for the software to operate correctly.

If you have purchased a multiple licence dongle (floating licence), you will need to plug this into an available USB port on the networked machine that the software clients will access when starting their copy of the software.

PC specification

3

Check that the selected PC meets the following specification before continuing:

Component	Specification	
	Minimum	Recommended
Processor	1Ghz Pentium III processor	2.4Ghz Pentium 4 processor or AMD equivalent
System Memory	256 Mb	512 Mb (1Gb if using software playout)
Disk Space	500 Mb free disk space	For the storage of media using software playout and the Ramcorder, we recommend the availability of a reasonable amount of free space (10Gb) on the main drive of the PC or the use of a separate RAID array disk system
Display Adapter	1280 x 1024 or larger full color 32 bit display	
Monitor	17" or larger XGA/SXGA monitor	
Operating System	Microsoft® Windows® 2000	Microsoft® Windows® XP Professional
Connectivity	None	Microsoft® Windows Services for UNIX client software for communication with Collage (available as an option), 10/100 BaseT ethernet interface
Storage	CD-ROM drive (necessary for first installation)	CD-ROM drive (necessary for CG Tools installation), 250 Mb Iomega Zip drive (recommended for job export to Collage, Collage 2 or Clarity)
Peripherals	PC keyboard and mouse (RapidAction keyboard and graphics tablet optional)	RapidAction keyboard, mouse and graphics tablet optional

The location of the machine operating as the networked licence server is specified during each CG Tools software installation on each of the client machines.

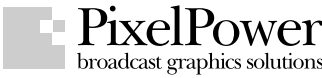
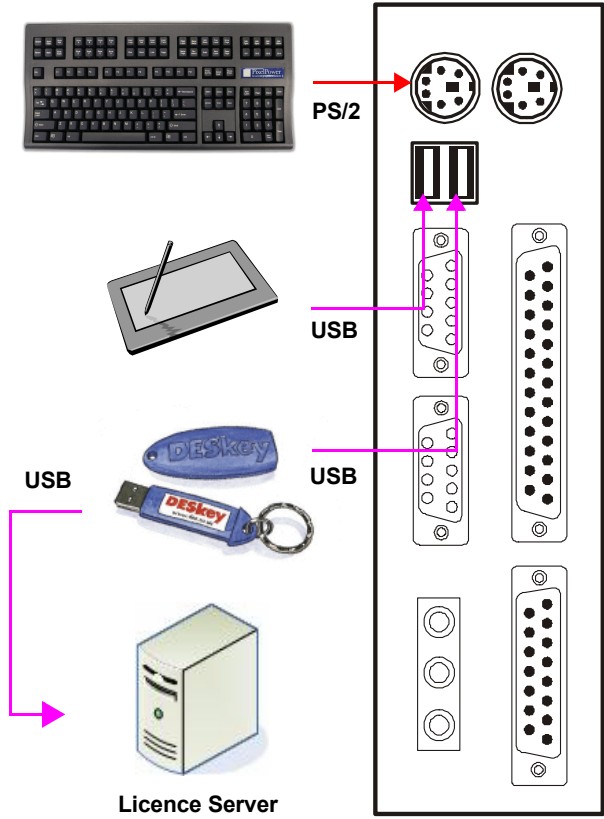
See overleaf for more details on installing the DK2 DESKey Network Server software on the machine enlisted as the network licence server.

4

What next?

Now that you have connected up your PC, see to the right for more information on further documentation resources and overleaf for more information on installing the CG Tools software.

Clarity PREP PC peripheral connections



Further documentation resources

Manuals and guides

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[http://www.pixelpower.com/support\\_forum.html](http://www.pixelpower.com/support_forum.html)

Your login ID will be sent via email before the close of the next business day.

Freelance operators and those who are not otherwise an employee of a Pixel Power user site may request a login ID and password via an email to support@pixelpower.com. Please state clearly the reason for your request. Once we have confirmed your login ID and password via email, you can access the login page for the forums using the following address:

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For more information about these services, see the following page on our website:

<http://www.pixelpower.com/support.html>

## Before you begin

1

These instructions are intended to guide the user through the installation of all products in the Pixel Power CG Tools family. It is recommended that you read through these instructions once before commencing the installation procedure.

Please read the hardware installation instructions overleaf before proceeding with the software installation.

## Preparation

2

Before you start you should have the following information and items:

- a copy of the installation media (CDROM, ZIP file etc.);
- you should have a blue USB licence dongle which should be installed on the local machine, or know the name of the machine on the network that will act as your dongle licence server (see section 3 below).

If you are installing a demonstration version, a dongle or a licence server is not required.

## DK2 DESKey Network Server software installation (floating licences) OPTIONAL

3

If you have purchased a floating licence and are in receipt of a single dongle, this dongle should be installed on a machine enlisted to be the licence server machine. The subsequent section details how to install the DK2 DESKey Network Server software on the machine enlisted as the network licence server. If you are updating an existing installation, there is no requirement to un-install the previous version first.

### Insert media

Insert the installation media supplied (the CG Tools installation CD-ROM) and run the DNSRV32 .EXE program located in the DONGLE folder. The **DK2 DESKey Network Server** installation should run.

### DK2 DESKey Network Server installation

1. Read the licence information, then select **Next** to accept the licence agreement.
2. Select **Next** to accept the default installation path or select **Browse** to navigate to a location where you want to install the software. Select the installation directory, then select **Next**.  
If you have previous version installed and the DK2 DESKey Network Server Windows service is currently running, a message appears requesting that the service must be stopped. Select **Yes** to stop the service and continue the installation.
3. The installation process begins. When it is complete, a dialog box is displayed asking if you want to start the licence server. Select **Yes** to start the licence server service or **No** to start it manually later.
4. Select **Finish** to complete the installation.

Make a note of the network name of this machine as it will be required during the DK2 DESKey Client software installation on machines being installed with the CG Tools software.

## Choosing an offline preparation product to install

4

If you are installing the software on a normal PC for the offline preparation of Collage/Clarity jobs, or for generation of media for use in other video graphics environments, then you need to know what version of the software you want to install. You have the following options:

### Clarity PREP

If you will be using the software for preparing or editing jobs played out on Pixel Power Clarity hardware character generators or if you wish to use the software to produce content for use with any of Pixel Powers' hardware products and/or generate graphic content for use with other video editing/graphic products e.g. Avid® Media Composer®, you require this version of the software.

This version can only run in YUV, but has no other features disabled. This version does not set up any Collage drive or font mappings by default.

### Clarity Plugin

If you want to make use of the plugin available for use with Avid® PC based editing products e.g. Symphony™, Media Composer®, NewsCutter® and XPress DV®, then you need to install this product.

## Locating the AVX plug-in folder [PLUGIN]

5

If you are installing the Avid AVX Plugin product, you will need to know the location of the AVX plugin folder for the compatible application you have installed i.e. Symphony™, Media Composer®, NewsCutter® and XPress DV®.

This folder is likely to be one of the following:

C:\Avid\AVX\_Plug-ins  
C:\Program Files\Avid\AVX\_Plug-ins  
D:\Avid\AVX\_Plug-ins  
D:\Program Files\Avid\AVX\_Plug-ins

Once you have all of the above information, you should check to see if any previous versions of the software are installed. If they are, then refer to section 6 for more information.

If they are not, refer to section 7 for more information.

# Clarityprep

## Quick Start Guide | H059W002\_Rev06 Software Installation

## Un-installing older software versions

If you have any old versions of Clarity or Clarity PREP on the machine, it is highly recommended that you un-install all of them before proceeding with the installation. To un-install all previous versions, follow the steps below:

1. Select **Start>Settings>Control Panel**. The **Control Panel** is displayed.
2. Select **Add/Remove Programs** from the **Control Panel**. The **Add Remove Programs** dialog box is displayed.
3. From within the **Add/Remove Programs** dialog box, select the first CG Tools, Collette or Clarity entry from the list of installed programs, then select **Change/Remove**.
4. From the resulting install shield dialog box, select **Remove** and then **Next**. The un-installation starts.

When the un-installation is complete DO NOT re-boot until:

- a) you have checked that there are no other versions of the software installed. If there are, repeat the above process for those versions of software.
- b) there are no versions of any DK2 software products (i.e DK2 DESKey Drivers) installed. If there are, repeat the un-install process for these software products, ignoring any errors received during un-install process.

Once all the programs have been removed, you should re-boot your machine.

## CG Tools software installation

To install, follow the steps in the sections below.

### Insert media

Insert the installation media supplied to you and run the SETUP .EXE program located in the CGTOOLS folder (in some instances the .EXE may be located at the root of the CD-ROM).

### DK2 DESKey Client software installation

1. Select **Next**. You have to select how you will be connecting to your licence dongle. Select one of the following options:

#### This Machine

Select this option if you are installing a demonstration version with no dongle supplied; or if you are installing the software on the machine with the dongle inserted.

#### Using a DK2 Network Server

If you will be using a network based licence server, with no dongle inserted on the machine into which you are installing the software, then select this option.

2. Select **Next**. If you selected **This Machine** in the previous step, the installation will begin.

If you selected **Using a DK2 Network Server** in the previous step, the installation will begin and the **Network Configuration** dialog box will subsequently appear.

Select **Add**. The **Add DK2 Server** appears. Enter the network name of the PC or Clarity that you want to connect to or alternatively click on **Browse** and select a network server using the standard Windows networking tree.

Select **OK** to return to the **Network Configuration** dialog box. Select **OK** to accept the selected server and complete the installation.

When the DK2 DESKey Client software installation is complete, you are returned to the **CG Tools** installation.

### CG Tools installation

1. The **CG Tools** installation dialog box will take you through the following panels:

<b>Introduction</b>	1 Select <b>Next</b> .
<b>License Information</b>	2 Read the licence information, then select <b>Yes</b> to accept the licence agreement.
<b>Choose Destination Location</b>	3 Select <b>Next</b> to accept the default installation path or select <b>Browse</b> to navigate to a location where you want to install the software. Select the installation directory, then select <b>Next</b> .
<b>Product Selection</b>	4 In section 2, you should have decided what product(s) you want to install. Select the desired products that you want to install and then select <b>Next</b> .
<b>Select AVX plug-in directory</b> Only appears if you have selected Avid AVX Plugin during product selection	5 If you selected to install the <b>Avid AVX Plugin</b> software, then you will be prompted to locate the AVX plug-in directory. In section 5, you should have located this directory. Select the desired AVX Plug-in directory and select <b>Next</b> .
<b>Software Component Selection</b>	6 Using the extensible component tree, check any additional software components that you want to install; clear any software components that you do not want to install. Highlighted components are described in the adjacent <b>Description</b> box. Select <b>Next</b> to continue. <b>INSTALLATION RUNS</b>
<b>Re-Start Machine</b>	7 Re-start the machine.

2. The machine should re-boot and the installation process is complete.

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